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NeXTWORLD EXTRA JANUARY 1993

NEWS IN BRIEF

NeXT stopped selling 25MHz upgrades for '030-based NeXTcubes on November 30. Users who now upgrade from '030- to '040-based NeXTcubes will lose support for their optical disk.

Datrix Corporation is shipping beta releases of two of the modules in its Datrix5 Accounting software for NeXTSTEP 3.0: General Ledger and Accounts Receivable, priced at $695 each. Final releases are due in the first quarter. The other modules in the Datrix5 suite, including Inventory, Purchase Order, Sales Order, and Payroll, will be available in the second quarter. Datrix: 602/545-7421; e-mail: info@datrix.com.

CuillaMartin has licensed the code for DefaultManager, a utility designed for programmers and network administrators to investigate and modify the NeXTSTEP default database. The company planned to release in mid-January DefaultManager 2.9, an interim single-user release for NeXTSTEP 3.0. DefaultManager 3.0, a major overhaul of the utility, will ship in the second quarter. Contact CuillaMartin for pricing at 708/223-5164; e-mail: vpnet.chi.il.us!cuilla!chris.

NeXT has gotten the attention of the U.S. House of Representatives. In November, the company was the first UNIX workstation vendor added to the House's subcommittee schedule, which means NeXT will be able to sell its hardware and software to the various subcommittees. In other news from the capital, the Defense Information Systems Agency awarded a contract to Digicon, which will be providing the agency with $2.4 million worth of NeXT computers and custom software.

Systemhouse, a $700-million-per-year consulting firm that specializes [CONTINUED ON PAGE 6]

Expo set for May in S.F.

by DAN RUBY

San Francisco – The most closely held secret in the NeXT community is out. NeXTWORLD Expo '93 will be held May 25–27 at San Francisco's Moscone Convention Center.

Like last year's premiere NeXTWORLD Expo, the show will combine a product exhibition, user conference, developer conference, and international user group meeting among its three days of events. The Expo is cosponsored by NeXT Computer, *NeXTWORLD* magazine, and Digital Consulting (DCI).

NeXT CEO Steve Jobs will be the keynote speaker. Details of the user and developer conference program will be announced at a later date. Pricing was not set at press time.

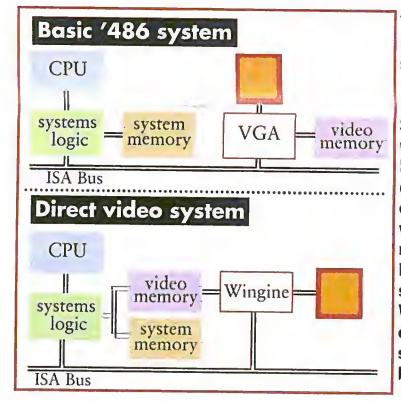
One theme of the show is sure to be NeXTSTEP '486, which was announced at last year's Expo and is expected to be nearing shipment to customers around the time of the show.

"NeXT has opened the door to a broader audience to get [SEE EXPO, PAGE 5]

NeXTWORLD EXPO

'486 hardware partners show up at Comdex

by DAN LAVIN



Though basic '486 systems (top) can run NeXTSTEP, it works best with direct access to video memory. Epson design with Wingine chip is shown at bottom.

Las Vegas – NeXT began to show its '486 hand at the Comdex trade show here in November as four hardware manufacturers publicly demonstrated support for NeXTSTEP '486.

In addition to the previously demonstrated Dell hardware platform, NeXT showed its software on Epson, Compaq, and NEC boxes at the show. Goldstar did not demonstrate at the show but is likely to support NeXTSTEP. No notebook systems were shown, though Toshiba is expected to be among the vendors supporting NeXTSTEP on '486 laptop models.

Although [SEE '486, PAGE 6]

'486 motherboard designs
See page 3

Big sites tell concerns at ProNeXT meet

by ELIOT BERGSON

Redwood City, CA – Representatives of ProNeXT, the loosely organized corporate-site user group, met with NeXT officials and third-party developers here in December to offer pointed feedback on NeXTSTEP 3.0, the ADB keyboard, and e-mail. NeXTSTEP '486 and the need for a notebook computer were also discussed.

"We talked a lot about bugs in [NeXTSTEP 3.0]," one source said. NeXT officials, including the NEXTSTEP product manager, the directors of software engineering and NeXTedge, and President Peter van Cuylenburg, outlined objectives for Release 3.1 and promised attendees that 3.0 bugs would be fixed in the new release and incorporated into NeXTSTEP '486.

NeXT is reportedly keen on getting as much feedback on NeXTSTEP 3.0 as possible before releasing 3.1 and '486 later this year. "'486 will be [an iteration of] 3.1," one source said.

Representatives from Swiss Bank Corporation; Ultra Systems and Logicon, system integrators working with the Air Force; the Los Angeles County Sheriff's Department; Williams Telecommunications; Temerlin McClain (formerly Bozell, Jacobs, and Eckhardt); and the William Morris Agency were also "real upset about the thought process, or lack thereof, that went into the ADB interface for the keyboard," the source said. Hardware-preference settings in enterprisewide apps like WordPerfect have to be constantly updated as [SEE PRONEXT, PAGE 5]

Jobs takes shots at Windows

by DAN RUBY *and* DAN LAVIN

Las Vegas – With NeXTSTEP '486 aimed at the mainstream personal-computer market, NeXT staged a guerrilla incursion into the PC industry's biggest annual gathering at Comdex/ Fall in November.

Although NeXT's hideaway showroom and meager floor presence captured relatively little attention, Steve Jobs broke through the noise level at his "CEO Perspective" presentation, proclaiming NeXTSTEP as "the only serious alternative to Microsoft Windows on the horizon."

In a demonstration of NeXTSTEP running on a Dell '486 computer, Jobs took repeated swipes at Windows, the industry's dominant operating environment. "[The industry is] in a precarious situation. Whenever monopolies come into play, innovation slows down," Jobs said. "It is very important that we work together to give customers at least one additional choice."

Customers may have to wait longer than expected, however, to get their hands on the software. Although Jobs told the audience that NeXTSTEP '486 would ship in the sec- [SEE KEYNOTE, PAGE 5]

Sales VP departs NeXT

BUSINESS NEWS

by DAN LAVIN

Redwood City, CA – The parade of high-level departures from NeXT continued last month, with long-time sales chief Todd Rulon-Miller announcing his resignation.

Until a replacement for Rulon-Miller is found, NeXT President Peter van Cuylenburg will manage the field sales force in addition to the corporate marketing departments. He will reportedly take a hands-on approach, with sources saying that van Cuylenburg will personally be involved in helping to close business deals. The four area sales directors are also expected to have a great deal of autonomy in running day-to-day operations, sources said.

The headquarters' sales staff, channel sales, and NeXTedge will temporarily report to Tom Dicker, director of North American sales [SEE RESIGNATION, PAGE 6]

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'486 mo direct ac

by SIMSON L. GAR

NeXTSTEP '486 will n with the graphics accele now popular in the PC place but will instead re new generation of PC di adapters that give the '4 direct access to screen m essentially using the '48 the accelerator.

"We build a window that is highly tuned for a frame buffer," said Bob program manager for Ne '486. The speedy Displa Script performance on hardware will port dir NeXTSTEP '486 if the P has a linear frame buffer lows the '486 CPU to di cess all screen memory.

But, Lawton explaine current PC video adapter give the CPU direct acces

When NeXT first dem NeXTSTEP '486 in Janua it was on a Dell '486 equ with a special JAWS sc adapter. Dell's JAWS impl tion uses an Intel specific build two complete video tems – memory-mapped and VGA – and combine arate outputs with a vide

Although NeXTSTEP does not use VGA, Dell i it for DOS and Windows

Now two companies – and Technologies, and AT nologies – have developed chip video-display control

PasteUp 1

by DAN LAVIN

Palo Alto, CA – With its release of PasteUp riddle serious bugs, RightBrain ware rushed a 1.1 version page-layout program out door December 10.

"There were a number problems I was screaming in 1.0, but I got 1.1 in rece and most of those problem gone," said Peter Truskier, manager for Star Graphics Francisco. Truskier made i however, that the jury was out on the new release, an he had already noticed sev problems with the produc four-color-separation cap ties. "I can't trust separatio from raster images yet."

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'486 motherboards need direct access to video

by SIMSON L. GARFINKEL

NeXTSTEP '486 will not work with the graphics accelerators now popular in the PC marketplace but will instead require a new generation of PC display adapters that give the '486 CPU direct access to screen memory – essentially using the '486 itself as the accelerator.

"We build a window server that is highly tuned for a linear frame buffer," said Bob Lawton, program manager for NeXTSTEP '486. The speedy Display PostScript performance on NeXT hardware will port directly to NeXTSTEP '486 if the PC also has a linear frame buffer that allows the '486 CPU to directly access all screen memory.

But, Lawton explained, most current PC video adapters do not give the CPU direct access.

When NeXT first demonstrated NeXTSTEP '486 in January 1992, it was on a Dell '486 equipped with a special JAWS screen adapter. Dell's JAWS implementation uses an Intel specification to build two complete video subsystems – memory-mapped video and VGA – and combine the separate outputs with a video mixer.

Although NeXTSTEP '486 does not use VGA, Dell includes it for DOS and Windows users.

Now two companies – Chips and Technologies, and ATI Technologies – have developed single-chip video-display controllers that provide NeXTSTEP with a linear frame buffer that also implements a complete VGA. Both chips have a maximum screen resolution of 1280 by 1024 pixels with 16 bits per pixel – perfect for supporting color Display PostScript.

With Chips and Technologies' Wingine chip, a PC maker places the video memory directly on the CPU's memory bus. The Wingine reads from video memory and sends the data to a high-speed video D/A (digital-to-analog) converter. "Wingine is a bottleneck reducer," said Dr. Scott Cutler, vice-president of software for Chips and Technologies. "We put the video memory on the memory controller. Logically it appears as another bank of SIMMs."

Systems must be specially redesigned to use the $15 chip; two system makers who have already done so are Epson and Lucky Goldstar.

ATI's chip, the mach32, is optimized for Intel's new PCI (Peripheral Component Interconnect) bus and should sport similar performance. The $75 chip also provides many graphics-acceleration features that, while unused by NeXTSTEP, may make the chip popular with DOS and Windows users.

On video adapters that do not support any linear-frame-buffer mode – including most existing VGA and SVGA systems – NeXTSTEP '486 will be only run in grayscale mode.

SoftPC Professional does Windows

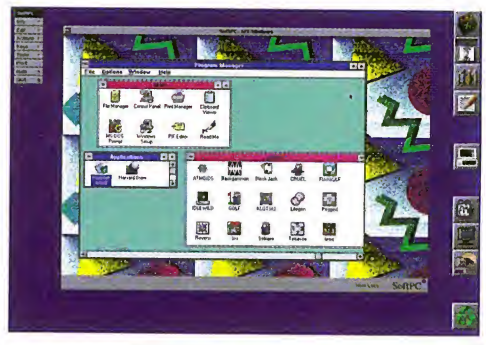
by DAN RUBY

Mountain View, CA – Now that NeXTSTEP will soon be available on 80486-based computers, Insignia Solutions is set to roll out a family of products that will make it easier for users to run DOS and Windows applications under NeXTSTEP.

SoftPC Professional is a new version of the company's existing PC-emulation software for NeXT and other workstations. Unlike SoftPC 2.0, which provided emulation of the PC AT, SoftPC Professional emulates the 80386-protected mode. According to the company, it will run DOS and Windows applications on NeXTstation Turbos and future faster systems at speeds comparable to a 16MHz–20MHz '386 system. Insignia said it would be priced at about $500.

The company will also ship SoftPC With Windows, a version bundled with Microsoft Windows 3.1 and Insignia's Windows driver, for around $700. Both products will ship in late January.

A third product, SoftPC for NeXTSTEP '486, includes native Microsoft Windows and Mouse drivers that enable users to run Windows applications at near-80486 speeds. Availability and pricing have not yet been determined. A related product, SoftNode, will provide NetWare client support for NeXTSTEP '486 systems.



SoftPC Professional runs Windows and DOS applications under NeXTSTEP at 80386SX speeds.

NeXT CEO Steve Jobs demonstrated the '486 version during his Comdex presentation (see "Jobs takes shots at Windows"). "With SoftPC, our customers can move into the NeXTSTEP object-oriented environment without leaving behind critical applications," he said.

According to Marc Munford, Insignia's NeXT marketing manager, SoftPC Professional provides 50 percent to 75 percent improved performance for character-based applications over SoftPC 2.0. Graphics performance is "orders of magnitude faster," Munford said.

The new product also provides a more NeXT-like interface, with a new panel for setting preferences and configuring virtual drives. It also allows users to define a Windows "monitor" of any size within the NeXTSTEP screen, sizing windows to fit any application. It also includes support for VGA and extended memory. The product integrates the NeXT and Windows clipboards, easing cutting and pasting between applications.

"We believe these products offer the best of both worlds to NeXT customers. It reduces their risk in choosing NeXT," Munford said.

Insignia can be reached at 415/694-7600.

PasteUp 1.1 fixes bugs

by DAN LAVIN

Palo Alto, CA – With its October release of PasteUp riddled with serious bugs, RightBrain Software rushed a 1.1 version of the page-layout program out the door December 10.

"There were a number of problems I was screaming about in 1.0, but I got 1.1 in recently and most of those problems are gone," said Peter Truskier, R&D manager for Star Graphics in San Francisco. Truskier made it clear, however, that the jury was still out on the new release, and that he had already noticed several problems with the product's four-color-separation capabilities. "I can't trust separations from raster images yet."

Registered users will receive the updated program for free, and RightBrain said that it will replace shrinkwrapped products already in the channel with Version 1.1. The list price remains the same, at $795.

Version 1.0 had at least seven critical bugs that crashed the program, as well as 15 other significant bugs. All have reportedly been fixed in the new release. Many of these had to do with the troublesome text object, which has been an issue throughout development of the product. Since the NeXT text object did not provide enough desired functionality for PasteUp, Right Brain wrote its own.

RightBrain can be reached at 415/326-2974.

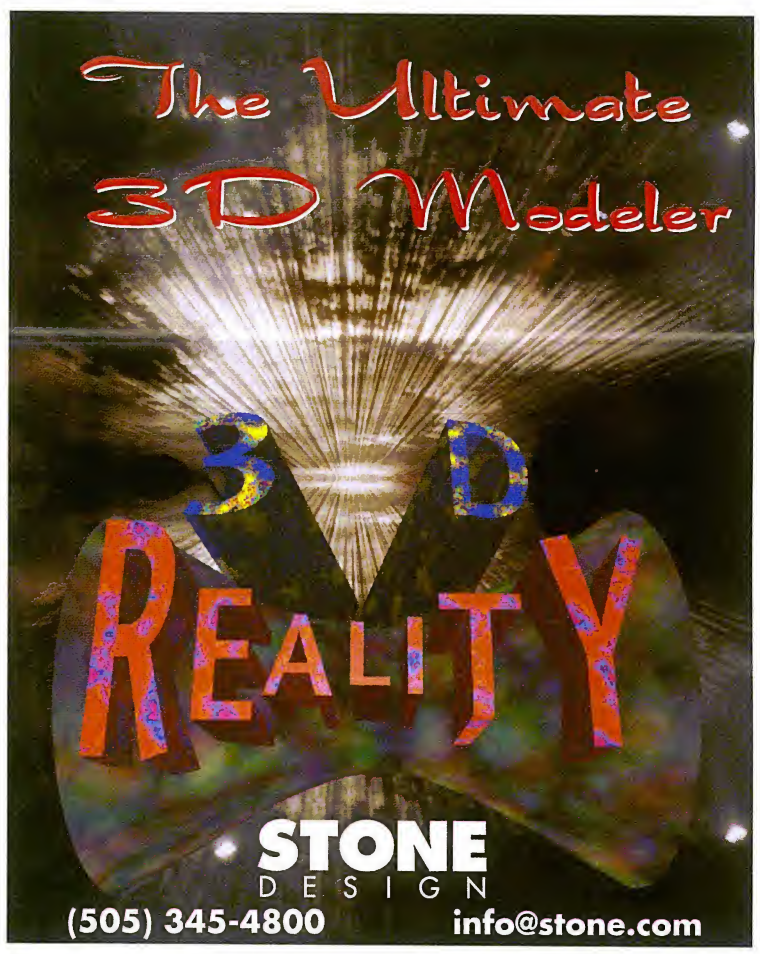


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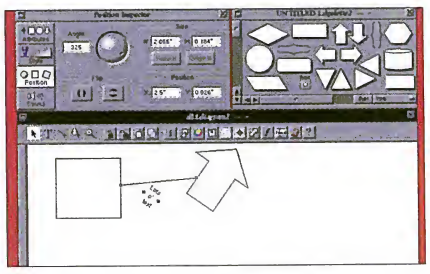
Diagram2 boosts usability with improved interface

by DAN LAVIN



The new, expanded interface for Diagram2 includes a tool ribbon.

San Mateo, CA – Lighthouse Design is expected this month to ship Diagram2, a major upgrade to its popular business drawing package.

The new version sports a greatly expanded and more accessible user interface, which features a new tool ribbon and expanded inspector.

"It's about ten times easier to use than the original," said Dain Erring, a NeXT systems engineer in Los Angeles who supports a large installed base of Diagram users. "Large customers are all raving about it. This is something many of them use on a daily basis. For those who do a lot of presentation of ideas, almost every document they produce has at least one Diagram illustration within it."

Ligthhouse has received over 2000 suggestions for improving Diagram since it shipped in January of 1991 through the product's built-in suggestion panel. "We correlated that list and delivered on all of the most popular," said Lighthouse President Jonathan Schwartz.

Diagram2 has a completely new file format that is interpretable by custom applications. Other new functions include arbitrary rotation of objects, line-label repositioning, and a user-extensible menu for palettes. Enhanced text handling adds speedy tabular text entry, spell checking, and a variety of manipulations like vertical centering and drop shadows. The application will also be the first to ship with Object Links, according to Lighthouse.

Diagram is one of the most widely used NeXT applications, boasting 4000 to 5000 users worldwide, according to the company.

Diagram2 sells for $499; upgrades are $99. Educational discounts are available. Lighthouse can be reached at 415/570-7736 or 800/366-2279.

NeXT challenged by SPARCclassic

A CLOSER LOOK

by SIMSON L. GARFINKEL

New faster and low-cost workstations unveiled by Sun Microsystems and Hewlett-Packard late last year could pose a serious threat to NeXT, which has not introduced fundamentally new or improved workstations in more than two years.

"This really puts the hurt on them in terms of performance comparison," said Terry Bennett, director of technical systems research for InfoCorp. "You have less expensive boxes with much higher performance."

Sun's SPARCclassic has a nondiscountable list price of $4295 for a color system with 16MB of RAM and a 207MB hard disk. In addition, an equivalent NeXTstation Turbo Color costs $8995 and offers less than half the performance, although some NeXT customers have been able to secure substantial discounts when purchasing systems.

Entry-level workstation systems

	NeXTstation Turbo Color	Hewlett-Packard Model 715/33	Sun Microsystems SPARCclassic
Price	$8995	$7395	$4295
Monitor	17-inch	15-inch	15-inch
RAM	16MB	16MB	16MB
Disk	250MB	525MB	207MB
Processor	33MHz Motorola 68040	33MHz HP PA 7100	50MHz Super SPARC
SPECint92	16	45	26.4

The Sun and HP workstations are aimed at different markets, said Bennett. "The Sun desktop is for the absolute, most cost-sensitive market that still needs a genuine windowing environment with a robust operating system – people who need beyond what Windows 3.1 does."

The HP workstation, on the other hand, is designed for users who need the ability to scale up to machines that offer high performance and the ability to support demanding 3-D graphics applications. HP's new 735 model lists at $37,395 and has twice the integer performance and five times the floating-point performance of the entry-level $7395 model 715/33.

Both Sun and HP workstations are based upon each company's RISC microprocessor. NeXT's announced hardware, on the other hand, is tied to the Motorola's 68040 CISC microprocessor. Substantial performance increases are not expected in the 68000 architecture until Motorola releases the superscalar 68060, which observers do not expect for at least two years.

NeXT enthusiasts maintain that while fast hardware is important for number crunching, it is less important for people writing their own applications – in which the key issue is development time rather than run time.

"These are great machines hardware-wise, but they miss all of the software features that make NeXT a great machine," said Keith Martin, president of B-Cubed, a NeXT authorized reseller in New Jersey. "Anybody can make faster hardware. . . . [But] people who are interested in NeXT are interested in NeXT for more than just the hardware."

Analysts say, though, that NeXT's lead in object-oriented software will shrink as other vendors bring to market software based upon the Object Management Group's emerging CORBA standard. "A lot of [NeXT's] object-oriented environment is going to be replicated there, but in a fairly broadly supported standard," Bennett said.

IPO timing in question

BUSINESS NEWS

by DAN LAVIN

London – NeXT's initial public stock offering (IPO), which had been planned for this year, may slip into 1994. Steve Jobs called a stock offering unlikely before 1994 in a speech here before a gathering of international bankers in December.

Jobs clarified his statement for *NeXTWORLD*, saying that the IPO will take place in the last half of 1993 or the first six months of 1994.

Several factors affect the timing of an IPO, according to NeXT. The company must amass a series of strong quarterly financial reports. In addition, general investor enthusiasm for IPOs runs in hot and cold cycles, and it is considered worthwhile to postpone an IPO until a favorable cycle, known as a "window," occurs.

Knowledgeable sources inside the investment banking industry have conflicting opinions on the success of a NeXT offering. Many, such as Charles R. Wolf, a vice-president at First Boston, said that NeXT will need to demonstrate strong financial numbers to have a successful offering, and that the stock's valuation will be in direct proportion to those numbers. But other analysts feel the magic of Jobs's name will propel the stock to premium pricing levels almost unrelated to any hard numbers.

NeXT hooks into European server

by ELIOT BERGSON

London – NeXT Europe announced in December reseller and porting agreements with Dolphin Server Technology AS of Oslo, Norway. To be completed in the first quarter, the port adds to a growing list of NeXT client-server solutions from companies that include Auspex Systems, Data General, NCR/Teradata, Pyramid Technology, and Solbourne Computer.

"We see the future of corporate computing with user-friendly platforms taking full advantage of multimedia, global access to data, and fast development of advanced client-server solutions," said Terje Knudsen, Dolphin's vice-president of sales and marketing. "We already have a couple of large customers very interested in our NeXT solution."

Dolphin was founded in 1989 by several members of the research-and-development team at Norsk Data and manufactures several models of RISC-based UNIX multiprocessor servers. It specializes in solutions for the government and banking markets.

In addition, Dolphin will be an authorized reseller of NeXT machines and license NetInfo source code. Dolphin can be reached at 47/2/62.70.00; e-mail: mktg@dolphin.no.

HSD ships international spell checker

by CONNIE GUGLIELMO

Mountain View, CA – HSD Microcomputer U.S. has put its spell on the NeXT, releasing last month an international spell checker for NeXTSTEP that supports 11 languages.

For $195, users get the HSD Spell application with dictionaries for English and one other language. Additional languages are $99 each. Languages currently supported include Danish, Dutch, English (U.K. and U.S. editions), Finnish, French, German, Italian, Norwegian, Portuguese, Spanish, and Swedish.

HSD Spell ships on two disks with all the language dictionaries; users can unlock additional dictionaries by buying an activation code from HSD.

In any application that supports the NeXTSTEP speller, HSD Spell can be accessed directly from within the program. In applications that do not support the NeXTSTEP speller, text is imported via the Services menu into the HSD spell-check application.

For a limited time, NeXT is bundling HSD Spell with NeXT's European Starting Point Kits.

The spell checker is just the first word from HSD. The company is working on a suite of other linguistics products for the NeXT, including thesauri, proofreading software, and grammar checkers.

HSD can be reached at 415/964-1400.

Expo

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Expo

[FROM PAGE 1]

NeXTSTEP everywhere," said Julie Welch, NeXT's director of marketing programs. "That will be evident with multiple '486 hardware manufacturers exhibiting at the show and with our other strategic partnerships."

Welch added that NeXT would reinforce its advantages in object-oriented development by sponsoring a contest for the best commercial and custom NeXTSTEP objects.

After last January's Expo, which drew more than 5200 attendees and more than 100 exhibitors, there has been great uncertainty about the date and location for the second NeXTWORLD Expo. Although the announcement of the show was delayed, more time remains to organize the event than last year's 88-day schedule.

"Last year's show was a wonderful kickoff. We expect to build on that success with more robust user and developer conferences," said Jeannine Barnard, publisher of *NeXTWORLD*.

NeXT and *NeXTWORLD* were partners in last year's event. The new partner, DCI, is a show-management company based in Andover, Massachusetts. Among its other shows are Database World and Client/Server World. For more information, call 508/470-3870 or 800/767-2336.

ProNeXT

[FROM PAGE 1]

workers move around large organizations.

Attendees also clamored for an e-mail system with a standard interface to other systems. While users at larger firms are "very happy" with NeXTmail, they are having problems integrating NeXT machines into heterogenous networks. NeXT is reportedly looking at rebuilding e-mail to accommodate these concerns.

The need for a NeXTSTEP notebook was also discussed. Users said they are willing to consider alternative windowing technologies, because notebooks currently available can't draw the entire NeXT workspace, but were adamant about giving workers who travel access to documents, spreadsheets, and presentations. According to sources, NeXT could get away with a scaled-down version of NeXTSTEP.

Another source stressed that despite its critiques, the group's mission is "to help NeXT succeed, help them do the right thing, get market share." Obviously, we're called ProNeXT for a reason.

Formed last year to trade information and concerns of users at large sites, the group also appointed several officers and considered adding McCaw Cellular, Mobil, and Chrysler to its membership.

Keynote

[FROM PAGE 1]

ond quarter of 1993, he revised that date until Q3 when he spoke to financial-services managers in London a week later.

The extra time is needed to provide an adequate beta-test period, which is expected to begin in January, Jobs said.

During the Comdex address, Jobs highlighted NeXTSTEP's advantages but acknowledged the inevitability of Windows by showing Insignia Solutions' SoftPC for NeXTSTEP '486 running Windows in a NeXTSTEP window (see "SoftPC Professional does Windows").

"NeXTSTEP gives me 3270 sessions into my mainframe for dealing with legacy apps, custom apps in a full client-server environment, great productivity apps, the greatest groupware system in the world – and Microsoft Windows to boot, if I want to remember how well off I really am," he said.

In an impromptu interview, Microsoft Chairman Bill Gates brushed aside any NeXT challenge. "There is more competition among operating systems now than ever before. For example, there's one called the Macintosh operating system, which Steve may remember," he said.

Gates also declined any interest in developing NeXTSTEP applications. "I am paid to make these decisions. We're not doing anything with NeXTSTEP at this time due to the sales volume."

While-you-were-out messaging checks in

by ELIOT BERGSON

If you keep losing those little slips of paper with phone messages scribbled on them, you might consider one of two new NeXT messaging applications.

FrontDesk, from St. Paul, Minnesota-based Integrity Solutions, is a workgroup productivity tool that runs over client-server networks and offers a host of user-definable features. The server can be one machine or several. Messages are routed to users through NeXTmail or, as long as the server is a NeXT, to other UNIX-based mail systems.

Some of FrontDesk's features include date and time stamps for messages, a secure mode for keeping messages private, message archiving, forwarding, and on-line help.

The product is priced at $429 for five users; large-site discounts are also available. Integrity Solutions can be reached at 612/223-8484; e-mail: frontdesk@is.com.

BenaTong, of Columbus, Ohio, announced wywo, a $79.95 messaging application that automatically logs incoming messages into screen fields and then routes them to users' mailboxes. Like FrontDesk, wywo can also send e-mail over any UNIX system. The application is designed to work in conjunction with BenaTong's Dialer, a Services application that allows modem hot-key access and administration. BenaTong can be contacted at 614/276-7859.

Xanthus puts biz graphics on the charts

Stockholm, Sweden – Xanthus International is readying Graphity, a $495 business-graphics application that includes Object Links to spreadsheet applications, including Xanthus Questor and Lotus Improv.

To ship in the first quarter, Graphity generates 2-D bar, stacked-bar, line, area, scatter, and pie charts. Bar, area, and pie charts can also be created in 3-D, with multiple light sources, shades, and textures. Xanthus can be reached at 46/8/612.89.95.

BRIEFS Continued

in client-server technology, is now supporting NeXT. The New York–based company has already put together a NeXT team and has begun hiring NeXT engineers for its 30 offices around the world. Contact Nick Christopher, 885 Third Ave., 25th Fl., New York, NY 10022-4834.

Monotype Typography has shipped an upgrade to its CD-ROM font disc that supports NeXT workstations. The Monotype FoneFonts CD, version 92.11, includes 1840 PostScript fonts from Monotype and Adobe, as well as Monotype TrueType fonts. For $49.99, users get eight Monotype Classic fonts; a program on the disk lets users order and unlock other fonts as needed. Monotype: 312/855-1440, 800/666-6897.

StatSci, also known as Statistical Sciences of Seattle, planned to release in early February Version 3.1 of S-Plus, its extensible, interactive language and software application for graphical data analysis, statistics, and mathematical computing. It runs on NeXT systems under X11R5; a version that works with NeXTSTEP is in development. The single-user version of S-Plus for NeXT workstations is $2800; educational discounts and site licenses are available. StatSci: 206/283-8802, 800/569-0123; e-mail: mktg@statsci.com.

NeXTWORLD Senior Editor Simson L. Garfinkel and Cal State Long Beach Professor Michael K. Mahoney have just published *NeXTSTEP Programming, Step One: Object-Oriented Applications.* It sells for $39.95. To order, call 800/777-4643.

NeXTWORLD Extra is a supplement of NeXTWORLD magazine. It is published monthly by Integrated Media, a subsidiary of IDG Communications, 501 Second St., San Francisco, CA 94107, and is distributed free to subscribers of NeXTWORLD. Lt. Sullivan's column and articles about unannounced NeXT products are reported and written by contributors without guidance from the NeXTWORLD staff.

Editor: Dan Ruby; Managing Editor: Connie Guglielmo; News Editor: Dan Lavin; Technical Editor: Simson L. Garfinkel; Associate Editor: Eliot Bergson; Layout Chief: Sue Troy; Layout: Beth Kamoroff

Resignation

[FROM PAGE 1]

operations.

Rulon-Miller's departure as vice-president of North American sales leaves three vice-president positions vacant at NeXT, as the search continues for the top posts in the software division and corporate marketing. Several director-level jobs also remains open.

Rulon-Miller, hired in 1986 as NeXT employee number 31, left to become president and CEO of Software Alliance Corporation of Berkeley, California, a division of Teknekron that provides software to large financial institutions. It is well known that Rulon-Miller clashed repeatedly with van Cuylenburg, but this seemed to have no role in his departure. According to both NeXT and Teknekron, he left only because he thought the move was a great opportunity.

The NeXT sales staff was disappointed to hear of Rulon-Miller's departure, according to one sales representative, who said, "We sure could have used him to help close the year. Peter is great with the big picture but I hope they hire a sales guy, a great closer like Todd to fill the job."

In related news, Bruce Martin, NeXTSTEP '486 project manager, left to return to Sun Microsystems after a yearlong stint working in NeXT's software division. According to NeXT, Martin will work in the research labs at Sun doing work that is not competitive with NeXT.

Avie Tevanian will take over for Martin and manage the development team working on NeXTSTEP '486. NeXT said that Martin's departure will not affect the already-late schedule for the product (see "Jobs takes shots at Windows").

Donna Simonides also resigned her NeXT post. Simonides, director of developer advocates, left to become the manager of the PowerPoint product line at Microsoft.

'486

[FROM PAGE 1]

NeXTSTEP will run unmodified on a large number of '486 platforms, manufacturer-specific drivers are needed for best results (see "'486 motherboards need direct access to video"). Because of its need to focus marketing resources, NeXT will limit the number of manufacturers with which it forms active partnerships.

NeXT users can look forward to superlative price and performance from "white hardware," as '486 hardware is termed, in contrast to NeXT's higher-priced "black hardware." Sources close to NeXT said that Epson's Progression machines using Wingine chips are the fastest all-around NeXTSTEP machines available. Project Manager Lynn Jennings attributed the computers' speed to the fact that they are optimized for Windows using a specially modified version of the Wingine chip that also speeds up NeXTSTEP.

Even including the $995 NeXTSTEP software, '486 machines will cost $1000 to $1500 less than a comparably equipped NeXTstation, with prices expected to continue dropping on '486 machines.

NeXTSTEP enters a rapidly changing marketplace for '486 machines, with prices swiftly dropping to commodity levels. Though makers welcome NeXTSTEP as a way to differentiate themselves from their competitors and sell machines loaded with high-margin items like memory and advanced graphics, NeXTSTEP's small installed base currently limits the marketing resources these companies can commit to the OS.

"It will be a flavor," said Michael Dell, CEO of Dell Computer Corporation, who explained that there is a great deal of interest in NeXTSTEP. But Dell's strength, he added, is in fulfilling customer demand in the marketplace, not creating it. Still, Dell did make modifications to its JAWS video standard to accommodate NeXT, and the two companies have begun making joint sales calls pitching the combination, according to Martin Seyer, Dell's director of advanced systems marketing.

It is becoming clear that hardware vendors consider NeXT responsible for creating customer demand for NeXTSTEP-equipped machines. NeXT appears ready to make that commitment: On December 1, Steve Jobs told an audience of bankers in London that up to 90 percent of NeXT's sales efforts would be directed toward software marketing. He also said that customers will decide the degree to which NeXT will remain a hardware versus software company.

Sullivan reminded that 'loose lips sink ships'

With all the public scrutiny over intelligence methods, the pressure is especially intense for the boys in document management. We've got Sen. Boren telling the press that the CIA's document-retrieval system is "woefully inadequate." To William Safire, opining in the Times, it's "egregiously inefficient."

That's unfair to a lot of dedicated professionals. For the most part, the right intelligence is available to the right people at the right time. But with the terabytes of data, all indexed and cross-referenced, and complex security requirements, it isn't impossible for a document to get lost in the system.

For a while last month, Lt. Sullivan wanted to get lost in the system. The heat was on over his last column, which identified an intelligence office that normally goes nameless. Now a few zealots in internal security were out to expose him. Sullivan spent a fretful night destroying any evidence linking him to the column and did his best to blend into the bureaucracy. So far, he's safe.

Eschewing e-mail for now, Sullivan switched to a physical drop to deliver this month's quota of rumors. At the top of the pile was this quote from CIA Director Gates's November 14 speech to the Association of Former Intelligence Officers: "There is no reason why we cannot describe to the American people what it is we do, what our priorities are, our process for producing intelligence, and the way in which we are organized to do that." It seems as if a few tidbits about the Agency's computer systems would be included in that discussion.

The next sheet on the stack gave Sullivan's assessment of the '486 hardware market. Some customers demand multiple sources for hardware purchases, so a choice among PC vendors is a blessing. Other customers want a single source for hardware and software, so look for NeXT to offer its own '486 box, probably a relabeled (and repainted) Epson. You'll probably pay a premium for the convenience, though.

Next was a clipping from NeXTWORLD – that curved-arrow road sign photo-graphed along Page Mill Road in Palo Alto. As you may remember, the cap "E" was painted over with a lower case "e" so it read: NeXT 8 Miles. Sullivan hadn't known who was responsible for that strategic adjustment until he recently exchanged e-mail with MIT Media Lab's Pascal Chesnais, who wanted to know, "What did you think of the sign?" It turns out that the last time he had flown out to the West Coast, he and an MIT undergrad had taken time out to climb that hill and paint the sign.

The next item was a list of attendees at NeXT's suite at Comdex. It was a little light on qualified customers, who may have had trouble finding the off-the-beaten-track showroom. But the list was full of former NeXT employees: Mike Slade, now the VP of special projects for Microsoft cofounder Paul Allen, and Chris MacAskill and Curtis Sasaki, now of General Magic. Next year, can we expect Donna Simonides and Todd Rulon-Miller to join the reunion? And when is the exodus of high-level NeXT executives going to end?

Lt. Sullivan

It's not just employees that come and go, so do customers. One of NeXT's big reference sites is especially unhappy, as its MIS chief made abundantly clear during the recent ProNeXT gathering of major customers. On the plus side, top ad agency Chiat-Day-Mojo completed its purchase of about 25 machines for a pilot project, while Kentucky Fried Chicken is close to a big buy.

Finally, Sullivan offered a couple of interesting tidbits related to NeXTSTEP developer Adamation. Mark Richards, formerly of Adamation and Pixar, has struck off on his own to start a new company, as yet unnamed. The new company will specialize in bringing vertical-market software to the real-estate industry and is funded mostly by NeXT customer Alain Pinel. Yes, he is still married to Helen Pastorino, president of Alain Pinel.

Also, Adamation's chief programmer, William Adams, is collaborating with Arthur Kyle, publisher of NeXTWATCH and The Big Green CD, on a practical hands-on NeXT programming book. The book will include code from Adamation's extensive development library.

With Sullivan lying low for now, he can't go out to find the story. Help him out with your inside tip and earn your very own Lt. Sullivan coffee mug. Send him a message at sullivan@nextworld.com or leave voice-mail at 415/978-3374.

NEXTWORLD

NEW

Kodak's Photo CD tech
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is shipping a multisession
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oped by MicroNet Tec
gy, is bundled with a c
and software for readin
CD images. For the Ne
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vare: 800/221-2217.

Pinnacle Research has r
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NeXTSTEP, including P
Chain 1.0, a $129 multi
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VWall, networkwide me
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five-machine license; an
Space, Version 3.0 of Ch
skate Software's virtual
dow manager. Version 3
for $69; current owners
upgrade for $5, or free
questing a new license ke
mail to virtspace@pri.co
nacle Research: 602/529-

MIDIapolis Systems has
chased and updated Cal
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The personal and group
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lis has also become the e
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MIDIapolis Systems: 612
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BenaTong in January an
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NEXTWORLD EXTRA FEBRUARY 1993

NEWS in brief

Kodak's Photo CD technology comes to the NeXT from Servare Business Systems, which is shipping a multisession, Photo CD-compatible CD-ROM drive. The $649 drive, developed by MicroNet Technology, is bundled with a cable and software for reading Photo CD images. For the NeXT, Servare is also shipping 32MB, 70-ns SIMMS for $2495. Servare: 800/221-2217.

Pinnacle Research has rolled out three new programs for NeXTSTEP, including PageChain 1.0, a $129 multidocument print and fax utility; VWall, networkwide messaging software for system administrators priced at $250 for a five-machine license; and VirtSpace, Version 3.0 of Cheapskate Software's virtual window manager. Version 3.0 sells for $69; current owners can upgrade for $5, or free by requesting a new license key via e-mail to virtspace@pri.com. Pinnacle Research: 602/529-1135.

MIDIapolis Systems has purchased and updated Calendoscope from Stained Glass Software, renaming it DayTripper. The personal and group scheduler sells for $129. MIDIapolis has also become the exclusive distributor of WarpIt, the $219 image-transformation application originally developed by Black Adder Research. MIDIapolis Systems: 612/822-1604.

BenaTong in January announced TymeSync, a $49.95 utility to help maintain clock accuracy on NeXT systems. TymeSync regularly calls on-line modems at either the National Institute of Standards and Technology or the U.S. Naval Observatory and "jumps" or slowly adjusts your system clock. BenaTong: 614/276-7859.

Well-Tempered Productions is Bach with a new CD. For *21st Century* [CONTINUED ON PAGE 6]

Black box in the works for NS '486

by DAN LAVIN

Redwood City, CA – NeXT will add an Intel 80486-based computer to its product line in the next few months as part of its effort to popularize the '486 version of the NeXTSTEP operating system, according to sources.

The computer will be an OEM product manufactured for the most part by a third party but bearing the NeXT logo. Although a manufacturer has not yet been selected, Epson, NEC, Compaq, and Intel's OEM division are rumored to be in the running. NeXT will sell the new machines through its direct sales force, according to sources.

NeXT President Peter van Cuylenburg announced the new strategy at an internal company meeting in [SEE NeXT '486, PAGE 6]

Hardware taking back seat?

by DAN LAVIN *and* DAN RUBY

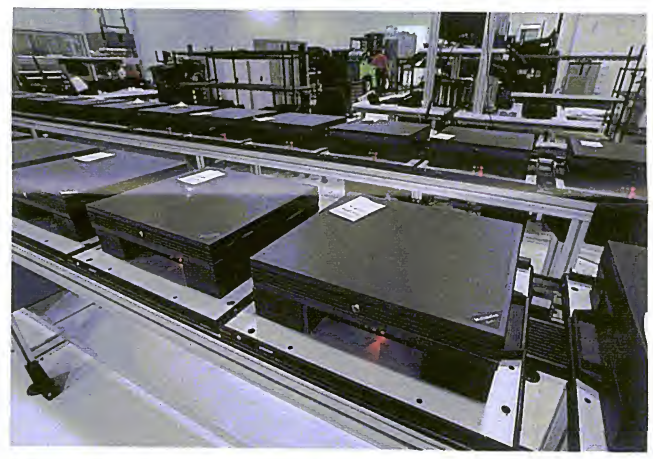
Redwood City, CA – Speculation that NeXT may be abandoning its hardware business heightened last month with the departure of NeXT founder and Hardware General Manager Rich Page. But Jon Rubinstein, the executive NeXT promptly named to head the hardware division, strongly denied that NeXT will jettison the business that presently accounts for 100 percent of its revenues.

Among the issues at stake are the fate of hardware products now under development and the future of NeXT's highly automated manufacturing facility.

"We are still very much in the hardware business. We are developing new products and need a factory to build both them and our current product line, " Rubinstein said. He added that he has a full complement of engineers and has the budget to replace them as needed. In addition to Page, two other NeXT hardware engineers resigned in December.

Rubinstein, formerly vice-president in charge of hardware design, picks up all of manufacturing still headed by Matt Medeiros and Kevin Grundy, as well as hardware marketing, which is temporarily managed by Ken Joachims.

NeXT executives have frequently stated during the past year that NeXT is in transition to a business model based primarily on software, and that it manufactures hardware as a reference platform for its operating-system software. At an [SEE NEXT HARDWARE, PAGE 6]



The future of NeXT's highly automated factory in Fremont, California, is in doubt, as the company rethinks its hardware business.

Big demand for contractors

by SIMSON L. GARFINKEL

NeXTSTEP programmers and consultants are commanding premium wages and positions as more companies test the waters and start up projects writing their own custom applications.

"I'm seeing a big demand for NeXT engineers who have two to three years' experience and either Oracle or Sybase experience," said Clint Tomlinson, manager of NeXT recruiting for Pencom Software in Texas. "DBKit background is definitely a plus."

"There is a shortage of qualified NeXT programmers," agreed John Keister, a recruiting specialist at HT Associates, an executive-search company in Illinois.

In general, NeXT programmers can expect to make between $40,000 and $70,000 per year in the Midwest or South, said Tomlinson, and between $60,000 and $80,000 in a major metropolitan center. Salaries can sometimes go much higher: Keister has three positions he is trying to fill for which his client is willing to go as high as $100,000 per year.

Those high salaries have created a boom for consulting companies such as Pencom and Virginia-based RDR. "Companies that try to do their own hiring . . . can't believe the pay scales, so they turn to the [SEE HELP WANTED, PAGE 6]

NeXT posts modest gain

At press time, NeXTWORLD learned that NeXT's sales for 1992 totaled $140 million. The figure, confirmed by NeXT, represents a ten-percent increase over the 1991 sales figure of $127.5 million. Quarterly, geographical, and unit breakdowns were not yet available.

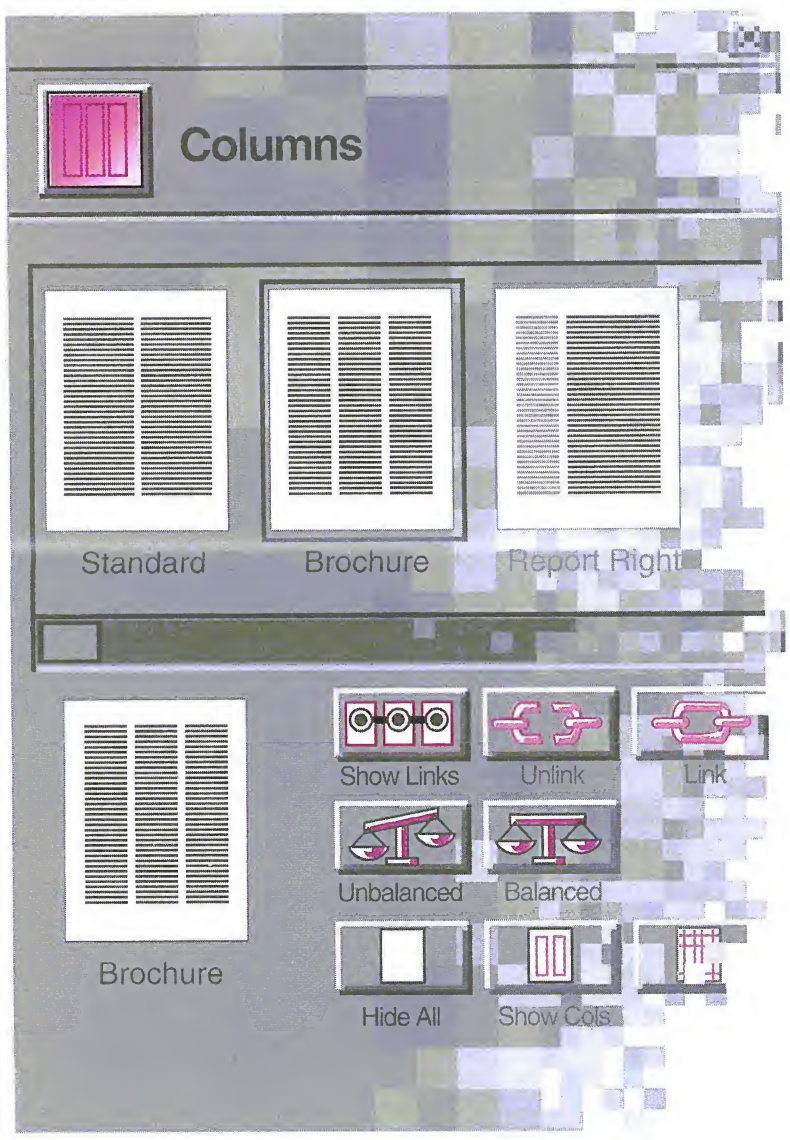
NeXT eyes alliances with workstation vendors

by DAN RUBY

Redwood City, CA – Sources close to NeXT confirmed that the company has engaged in talks with Hewlett-Packard, the number-two manufacturer of RISC-based workstations, about porting its NeXTSTEP software to HP's PA-RISC computers. As of mid-January, however, no deal had been concluded, sources said.

The discussions are part of NeXT's emerging strategy to restructure itself as a software supplier instead of hardware manufacturer. Besides the HP talks, sources said NeXT has also initiated contacts with Sun Microsystems and Digital Equipment Corporation, to discuss possible ports to other RISC platforms.

With most of NeXT's software resources committed to completing its port to Intel's 80486 chip, no additional ports are expected before 1994, according to the sources. [SEE ALLIANCES, PAGE 5]



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DBKit ad permits r

by ELIOT BERGS

Calabasas, CA – Sonris ware is now shipping Si NeXT DBKit adaptor th users to create and acces ally stored data stored in files. The software sells

According to the com Simpla is designed for de system administrators, an ticated end users who w quickly set up databases sonal or group use. The can be used for custom-a tion production, educati the DBKit, and applicatio typing, without the need up to a large relational d during the development

In addition to support standard DBKit types, th tor also supports numeri with fixed precision, sucl imals; retrieving image d number and other forma and user-defined custom classes.

Simpla stores tables i dard text files and stores descriptions in a separate

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DBKit adapter for flat files permits rapid prototypes

by ELIOT BERGSON

Calabasas, CA – Sonrisa Software is now shipping Simpla, a NeXT DBKit adaptor that allows users to create and access relationally stored data stored in flat text files. The software sells for $199.

According to the company, Simpla is designed for developers, system administrators, and sophisticated end users who want to quickly set up databases for personal or group use. The software can be used for custom-application production, education about the DBKit, and application prototyping, without the need to hook up to a large relational database during the development cycle.

In addition to supporting the standard DBKit types, the adaptor also supports numeric values with fixed precision, such as decimals; retrieving image data; line number and other formatting; and user-defined custom data classes.

Simpla stores tables in standard text files and stores table descriptions in a separate file, in which a variety of formatting options can be specified. Users can read and update records from the tables, authorize table locking or multiuser access, and perform indexing or sorting functions. Since Simpla tables are stored as text files, other NeXT applications can access the tables directly.

For more information, Sonrisa Software can be reached at 818/878-9100; or e-mail: simpla@sonrisa.com.

Versant, IP ship database tools

by DAN RUBY

NeXTSTEP database developers have a wider choice of tools now that two long-awaited database products have shipped. Versant Object Technology released the NeXT version of its object database management system (ODBMS), while IP Design shipped a feature-rich enhancement to Parabase.

With its shipment, Versant beat Object Design (ODI) to market with the first commercially available ODBMS for NeXTSTEP. "Now developers can use NeXTSTEP and Versant to create and deploy complex object-based applications which would be impossible with conventional technology," said NeXT CEO Steve Jobs.

Versant's ODBMS for NeXT includes robust tools for browsing database schemas and objects.

Versant claimed that the product delivers transparent multiuser access to objects distributed anywhere on a local network.

The product is available at an introductory price of $1995 until March 31.

IP Design said that Parabase 1.1 adds 47 new features to its relational client-server database-development system, including extensive new scripting options and interface improvements. Parabase is used with Sybase or Oracle database servers for form generation, database creation and modification, report writing, ad hoc querying, and database administration.

The upgrade is free to registered owners of Parabase 1.0. A single-user license costs $695.

IP Design: 310/394-1820. Versant: 415/329-7500.

Gateway to mainframe data

by CONNIE GUGLIELMO

Boulder, CO – Micro Decisionware (MDI) and NeXT have teamed up to provide connectivity between NeXTSTEP and MDI's Database Gateway product line, which provides users access to relational and nonrelational mainframe data.

The agreement also certifies NeXT's DBKIT to access IBM's DB2 and other IBM mainframe databases.

But MDI releases its Database Gateway for UNIX in July, NeXT workstations must access the Database Gateway via OS/2 systems on a LAN using Microsoft's SQL Bridge.

"DBKIT . . . permits NeXT client workstations to gain easy access to relational databases from any vendor simply by providing an adaptor to the database," said Brett Bachman, director of NeXTSTEP product marketing.

"The MDI Database Gateway provides just such an adaptor to DB2 and the rich variety of data on IBM mainframe databases."

Micro Decisionware can be reached at 2995 Wilderness Pl., Boulder, CO 80301. Phone 303/443-2706.

Reporting apps track calls to tech support

by SIMSON L. GARFINKEL

Columbus, OH – Intuitive Edge has released three applications for NeXTSTEP 2.0 that ease the building and maintaining of simple text databases. Two of the programs – Reporter and ReportBuilder – are particularly well suited to building question-and-answer databases for technical-support concerns. The database can then be scanned through NeXT's Digital Librarian, according to Monty Zukowski, the company's president.

A third program, ReporterLimitedVersion, is a free, distributable bug-reporting application that developers can integrate into their prerelease software. ReporterLimitedVersion automatically sends bug reports back to the developer via NeXTmail.

The three programs are available for $145 each and will be distributed on the upcoming Electronic AppWrapper from Paget Press. For more information, contact Monty Zukowski at 614/299-2871; or e-mail: monty@IntuitiveEdge.com.

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BUSINESS NEWS

Appsoft restructures

by DAN RUBY

Palo Alto, CA – Anticipating weak sales of NeXT hardware in the first half of 1993, Appsoft radically scaled back its operations in December.

Although the company laid off many of its employees and relocated to much smaller quarters, President Randy Adams said that Appsoft would proceed with most of its plans for product development and marketing. "The changes in the company will not affect the quality of the products or the level of support for products in the pipeline," he said.

During two rounds of layoffs in December, Appsoft cut loose nine employees. Adams said most of its development projects will be switched from salaried programmers to contract development and royalty arrangements. He said that all of the company's announced future products, including Solution, Write, Express, Assistant, and Perspective, are still on track for shipment during the first half of 1993. Appsoft Image, its color image-editing application, shipped in January, joining Draw and WriteNow on the company's roster of shipping programs.

"We did the downsizing primarily for strategic reasons," Adams said. "It was based on our knowledge of what will happen in the NeXT market, much of which is under nondisclosure and we can't discuss."

Adams also claimed that Appsoft's venture partner, Sequoia Capital, is standing by the company and prepared to provide additional funding when necessary. He added that the company was paying its bills and has reserved a large booth space for the upcoming NeXTWORLD Expo in May.

"With our venture funding and ambitious plans, we were the fat cats in the NeXT market. Now we are a lot more like other NeXT developers," Adams said.

Appsoft can be reached at 415/802-2900.

NeXT customer Phibro downsizes, leaving software spin-off in lurch

by ELIOT BERGSON

Westport, CT – Phibro Energy, the oil-trading giant that has been a high-profile NeXT success story for two years, was significantly downsized and reabsorbed into its parent Salomon Brothers on January 1 due to poor financial performance. As a result, NeXT development plans at both Phibro and its software spin-off, mc² Technologies, which had a contract to develop NeXTSTEP '486 applications for Mobil Corporation, have suffered.

Phibro had contracted for at least 310 NeXT machines through 1992 for its worldwide operations, which centered around custom development of trading applications at mc². It was unclear whether the company would stay with NeXT, although a Phibro spokesman did say it was "moving ahead with the machines, [but] not spending as much on the project."

"It's pretty ruthless," one source close to the project said. "People do badly for a few quarters and they're gone."

Phibro in 1992 lost $30 million and $23 million in Q1 and Q3, respectively, while posting a $19 million gain in Q2. A Salomon spokesman blamed the losses on "very, very narrow spreads" between crude and refined-product prices, and very little volatility in oil prices overall, making it difficult to make money trading.

Of "about two dozen" outside developers at mc², none remain, one source said, adding that Phibro planned to trim its trading force to only six "by year end." A Phibro spokesman would say only that "about seventy employees" have been cut so far.

Several sources confirmed that mc² is seeking venture capital or financial help from a third party to continue development efforts for Phibro and Mobil Corporation.

Mobil executives were reportedly unnerved by the instability at mc², but one source reported that the New York office of Systemhouse, a $1-billion client-server consulting firm, has been brought in to "increase Mobil's comfort level." In addition, Objective Technologies, which helped mc² develop the original work at Phibro and was a partner in the Mobil development project, is still under consideration to finish the project.

Mobil declined to comment on any on-going negotiations involving vendors or contractors.

VAD adds European support

by ELIOT BERGSON

Denver – Random Access (RA), a $100-million value-added dealer beginning to specialize in NeXT training and hardware, has inked a deal with Sweden's Xanthus International to distribute and support its software in the United States and Canada. Negotiations with France's ARES, Germany's tms GmbH, and Italy's GESTEL continued at press time.

The deal represents a chance for European developers to offer support and easy distribution to American and Canadian end users. "[The situation] was a pity," said Alex Mazzardo, sales manager for GESTEL. "The U.S. market doesn't know about the existence of some very good products."

Under the agreement, RA will be trained on the products and then offer users technical, upgrade, and warranty support through a toll-free number, as well as provide end-user training at its headquarters. For developers, RA will offer joint advertising opportunities, customer-product tracking, and marketing coordination.

Customers who purchased NeXT machines or obtained training from RA have asked for help in finding software solutions, explained Pat Hourigan, workstation manager. "People need whole solutions. Software is where it's at."

Health care partners named

Walnut Creek, CA – Trego Systems signed an agreement with Franciscan Health Systems of Cincinnati in January to provide health-care system maintenance on NeXT machines at three hospitals.

Franciscan will use Trego's custom CaseServ application to monitor managed-care contract information and eligibility lists, and to access decision-support capabilities.

According to Trego President Ellen Williams, the system also manages capitation plans, which are new to the industry: They pay hospitals a set amount to provide health care to a large group of plan members. If a patient needs a procedure not performed at the hospital, a subcontractor is then chosen to provide that procedure for an agreed-upon fee.

– ELIOT BERGSON

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ETI's Bi

by LEE SHERMA

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ETI's Birds of Europe lands on CD-ROM

by LEE SHERMAN

Amsterdam, The Netherlands – *Birds of Europe*, a multimedia CD-ROM developed by The Expert Center for Taxonomic Identification (ETI), is expected to take flight in the second quarter for $149.

Created with CraftMan software from Xanthus International in Stockholm, Sweden, the disc includes a rich database about 419 birds, including more than 1200 color TIFF images.

Designed as an educational tool for primary, secondary, and university students, the CD-ROM comes alive interactively with sound, photo-realistic pictures, and full-motion video sequences. Bird watchers can use it as a multimedia encyclopedia.

Birds of Europe contains images and data on more than 419 birds.

The software, also available for Macintosh and Windows, was optimized for NeXT and will run on any monochrome or color workstation.

Part of ETI's Biodiversity project, the CD-ROM was designed to increase awareness of the different kinds of birds that share the planet with us.

ETI was established by the Dutch government in 1991 and charged with developing a computerized multimedia database of the world's animal and plant species. This database is maintained on NeXT computers running Sybase and can be accessed by other research institutions via modem.

The Institute for Taxonomic Zoology, University of Amsterdam, can be reached at 31/20/525.72.39; or NeXTmail: kestep@eti.bio.uva.nl.

Alliances

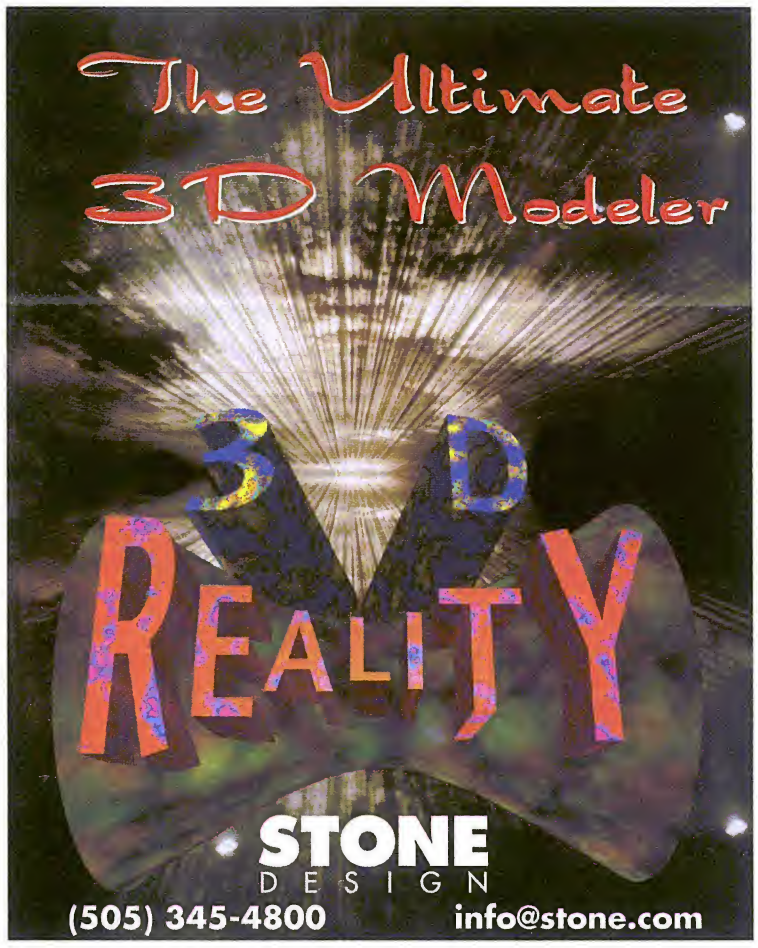
[FROM PAGE 1]

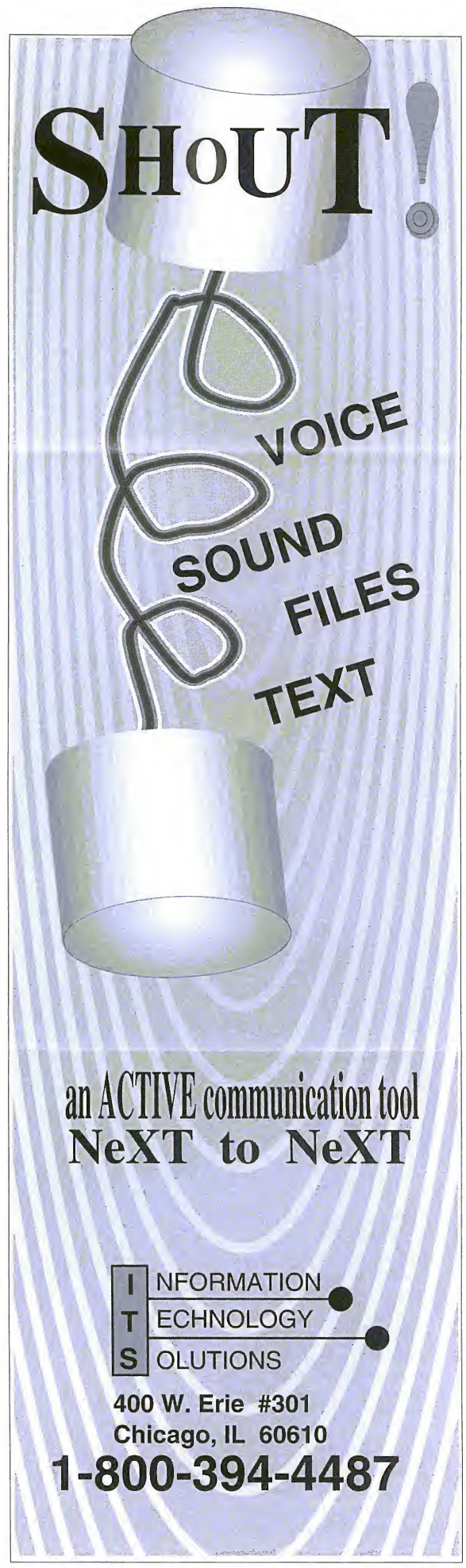
A deal with HP might be similar to NeXT's earlier agreement to deliver a version of NeXTSTEP for IBM's RS/6000 workstations. That agreement collapsed after IBM opted not to release the NeXT software.

"A deal with HP could be important in assuring large corporations that NeXTSTEP is a viable platform with major-company support," said a NeXT third-party developer familiar with the talks.

But another source said NeXT may not be in a strong-enough position to negotiate favorable terms. "HP is a lot smarter than IBM, and 1992 is a lot different than 1988. The question is: What's in it for HP?" the source said.

A NeXT spokeswoman denied published reports that the HP talks included discussions of an equity investment in NeXT by Hewlett-Packard.





Briefs continued

Bach, composer Kathy Geisler generated all voices and instruments on a NeXT computer, without benefit of an external synthesizer, using the Music Kit and custom software developed by David Jaffe, one of the Kit's principal authors. Well-Tempered Productions: 510/526-5608.

Athena Design is giving out a free 25-user license for its Mesa spreadsheet to any educational institution that has NeXTSTEP computers on its network for student use. Inquires should be made to dpp@athena.com. Athena has also placed Culture Shock, its $24.95 tile game, into the public domain. A copy of the program is available by anonymous **ftp** to athena.com.

Chris Cuilla joined Chicago-based IT Solutions in December as a software engineer, bringing with him CuillaMartin's DefaultManager and Calculator Set. IT Solutions will now provide technical support for CuillaMartin products. IT Solutions currently markets SpeedDex, World Clock and Shout, and provides custom applications for training of key NeXT corporate customers. IT Solutions: 312/587-2000.

Correction: The description of the NumberedExtensionManager in the December *NeXTWORLD Extra* is inaccurate. It does not have any file-searching capabilities, nor does it let you assign numbers to directories. Instead, give the NEM object the name of the directory to which you are saving, and it returns a number that hasn't been used in any of the filenames in that directory. Use that number in a filename and it will be unique. Intuitive Edge: 614/299-2781; e-mail: NEM@IntuitiveEdge.com.

NeXTWORLD Extra **is a supplement of *NeXTWORLD* magazine. It is published monthly by Integrated Media, a subsidiary of IDG Communications, 501 Second St., San Francisco, CA 94107, and is distributed free to subscribers of *NeXTWORLD*. Lt. Sullivan's column and articles about unannounced NeXT products are reported and written by contributors without guidance from the *NeXTWORLD* staff.**

Editor: Dan Ruby; Managing Editor: Connie Guglielmo; News Editor: Dan Lavin; Technical Editor: Simson L. Garfinkel; Associate Editor: Eliot Bergson; Layout Chief: Beth Kamoroff

NeXT '486 [FROM PAGE 1]

mid-December, describing NeXT's '486-related products as the future of the company.

The decision to sell '486 hardware, according to sources, came after large customers said they preferred purchasing computers and operating systems from a single source. Van Cuylenburg has been quoted as saying that NeXT will always offer "reference hardware" optimized to run the various flavors of NeXTSTEP.

Industry analyst Stewart Alsop supported NeXT's new strategy. "If they're going to say that [NeXTSTEP] works well on Intel, they should build the hardware to support it. Porting NeXTSTEP to Intel and letting customers put it on their own hardware is not a real commitment," Alsop said.

NeXT has suffered repeated schedule delays on the '486 software project due to the variety of computers and devices populating the PC world that must be supported and tested. One way to make sure that at least one NeXTSTEP '486 configuration reaches the market quickly is for NeXT to offer customers a system, sources said.

In the meantime, the '486 software project continues to suffer personnel setbacks. Jeff Spirer, '486 marketing manager, has resigned and gone to work for Sun Microsystems, where he will be responsible for encouraging other operating-systems vendors, such as NeXT, to port their software to the SPARC platform.

Bruce Martin and Brian Pinkerton, key engineers on the '486 project, have also left, along with Caroline Donahue, the architect of the '486 channel marketing program. Avie Tevanian, the senior manager brought in to oversee the project, has been ill, leaving Paul Hegarty temporarily in charge. NeXT claims that its planned release of NeXTSTEP '486 this summer will not be affected by the changes.

A NeXT spokeswoman declined to comment on the reports.

NeXT Hardware [FROM PAGE 1]

internal company meeting on December 18, NeXT President Peter van Cuylenburg implied that '040-hardware sales increases were not enough to sustain the company or lead to growth. He touted the NeXTSTEP '486 port and related hardware as a stronger direction for the company (see "Black box in the works for NS '486").

In response to questions from manufacturing personnel, van Cuylenburg is said to have suggested that some excess capacity in the factory could be used to contract out work for other corporations or by Canon, NeXT's prime financial backer. Some sources also reported that the factory may be used for final assembly of NeXT's new OEM '486 hardware.

Although development of future workstation products continues in the hardware division, software support for those products has reportedly been diverted to the NeXTSTEP '486 project, placing their future in jeopardy. Sources stated that customer interest in the non-'486 based new products has been slack.

Some observers contend that NeXT needs to pursue its hardware business to remain viable.

They noted that Rubinstein's immediate promotion and assignment to a seat on NeXT's policy team was an indication that the company is committed to continued hardware development.

Help Wanted [FROM PAGE 1]

outside," said John Lucian, director of RDR's advanced technology group.

Indeed, said Keister, many companies are reluctant to make permanent hiring decisions right now "because they are not sure about the long-term viability of NeXT."

RDR's Lucian likened today's demand for NeXT programmers to the demand for Oracle-fluent programmers a few years ago. "When Oracle came out in the mid-1980s, it was the same scenario: The company struggled for a few years, then the product started selling like hotcakes."

During that time, companies had to "pay through the nose" to get people experienced with Oracle, Lucian said.

Tomlinson advised job-seekers to "get as much training as possible in DBKit and other database environments," since many customers are looking to use NeXTSTEP to build the client programs for client-server systems. And, he added, "Be patient. The environment is going to be changing very rapidly. . . . When '486 hits the streets, it is going to open up a whole new avenue for NeXT engineers."

NeXT called in on Canon's magic carpet

Lt. Sullivan was feeling crisp and freshly pressed as usual when he deplaned at Tokyo's Narita Airport. With the Agency's national-security mission redefined to include economic intelligence, Sullivan was making the rounds of field officers running operations in the Asian electronics and computer industries.

Shuffling down the concourse in the opposite direction were four jet-lagged Westerners. Sullivan ducked behind a column, then watched as Steve Jobs, Peter van Cuylenburg, Marcel Gani, and Tom Lavelle collected their bags and piled into a limousine. Not yet having an informant placed at a high level inside Canon (as Canon has had for the past nine months inside NeXT), Sullivan was unable to learn exactly what Dr. Yamaji had to say to the Redwood City Canon fodder. But it undoubtedly wasn't an entirely pleasant meeting.

Sources at NeXT said the team had been summoned to Japan for emergency consultations, though the official story was along the lines of a regularly scheduled performance review. If the sources are right, you can assume that topics like management structure and the fate of the factory were high on the agenda. On the other side, NeXT's fourth-quarter operating profit argued for continued tolerance. As he boarded his plane for his next stopover in Taipei, Sullivan expected no immediate canonical moves. Stay tuned.

Lt. Sullivan

On the home front, attention has turned to NeXTWORLD Expo. With the date set, NeXT and third parties have a target for their development and marketing schedules. HSD, for example, is planning to unveil a major upgrade to OCR Servant and a solution for dictaphone use with a NeXT.

Meanwhile, there is some grumbling among developers about the cost of booth space (a few even kicked around the notion of an anti-Expo), but there is a lot more jockeying for position on the show floor. Apparently, Steve himself has shown great interest in the design of booths adjacent to the NeXT booth (big) and particularly the size of those exhibits (not as big as NeXT's.) Some developers aren't happy about the restrictions, seeing it as another sign of declining support for NeXT's third-party partners.

A case in point is the situation of loaner machines for NeXTSTEP '486 development. With support for various hardware configurations still in flux, most developers need to borrow a machine from NeXT to recompile and debug their '486 ports. NeXT has loaner units available for its larger customer sites, which can then evaluate their custom-apps strategies, but has zero machines available for loan to commercial software developers.

The saga of the integration contract with the L.A. County Sheriff's Department continues. The latest development is that Dolphin Software and TRW won a contract rumored in the half-million-dollar range. Dolphin has already opened an office in Los Angeles and the entire team has moved quickly to begin work on the project.

Is the NeXT sales job getting easier? Meijer Corporation, of Grand Rapids, Michigan, recently called NeXT from out of the blue to place a sizable order of NeXT workstations for use in its Meijer Thrifty Acres stores. It had evaluated the alternatives and selected NeXT technology for its needs – all without benefit of any NeXT sales people or systems engineers. Sullivan thinks they deserve a discount.

In housekeeping news this month, Steve's favorite CIO, Paul Straussman, godfather of NeXT's operational-productivity strategy, resigned his post as information technology chief at the Pentagon. Insiders said he stepped aside to allow Clinton's national-security team to develop its own information strategy. Even closer to home, a certain colonel who has been instrumental in NeXT's dealings with the government has also retired from public service. He will keep his hand in the community with various consulting projects for NeXT.

Like every other NeXT-community insider, Sullivan was shocked by news of the feud between NeXT and NeXTWORLD. Concerned for the longevity of his column, Sullivan checked his sources at megapublisher IDG and was relieved to learn that all systems are still go for the harried team of loyalists at NeXTWORLD. The parties are working in concert on NeXTWORLD Expo and IDG is standing behind the magazine. Sully's column will continue to have a home, and he will continue to have a few things to say as events unfold during 1993 and beyond.

Coffee is a passion in San Francisco, so you'll want to be seen drinking the right beverage from the right cup during your NeXTWORLD Expo visit. Earn your Lt. Sullivan coffee mug today by sharing your insider knowledge. Write him at sullivan@nextworld.com or leave a message at 415/978-3374 (voice mail).

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[FROM PAGE 1]

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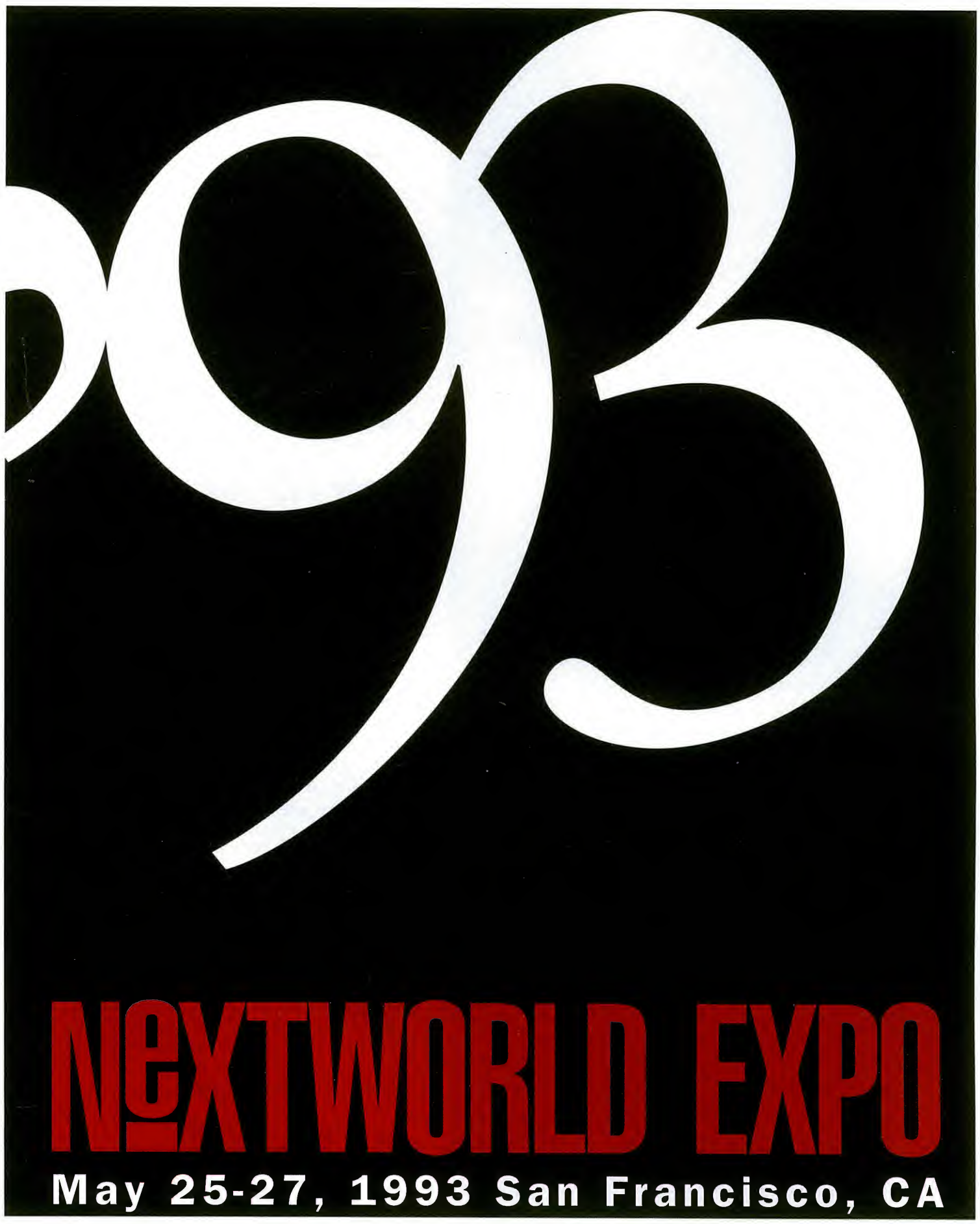

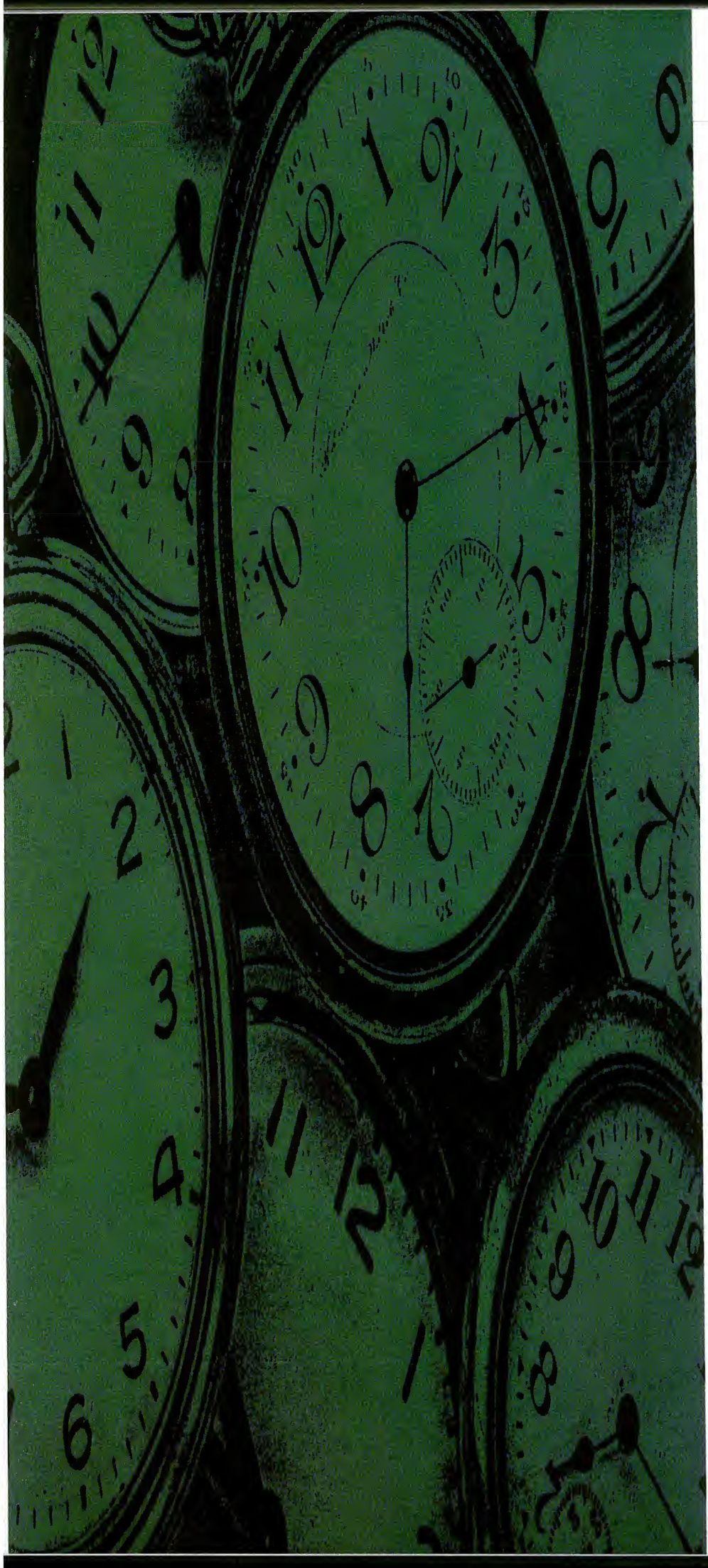

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* "The CW Guide to Servers: Buyers' Scorecard," Computerworld, March 22, 1993.

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WELCOME TO THE FUTURE OF OBJECT-oriented computing on industry-standard hardware. At the first NeXTWORLD EXPO, NeXT announced plans to port its leading-edge software, NEXTSTEP, to the business hardware standard, Intel-based PCs. Today, as we convene the second NeXTWORLD EXPO, NeXT delivers on that promise by shipping NEXTSTEP 3.1 for Intel Processors.

That's great news for the tens of thousands of users and information-systems managers who have already recognized the benefits of NEXTSTEP on Motorola hardware. And it opens new doors to the mainstream of corporate computing professionals, who will now be exposed to NEXTSTEP for the first time.

For other system-software suppliers, the future remains a mirage of promises. Microsoft and Taligent, the joint operating-system venture from Apple and IBM, share NeXT's vision of an object-oriented OS and development environment for mission-critical custom applications. But their software remains on the drawing board, while NeXT is shipping a mature environment that users are taking advantage of today.

Supporting NeXT's move to the business mainstream is a heavyweight lineup of PC manufacturers, including Compaq, Dell, Epson, NEC, Data General, Hewlett-Packard, and Siemens-Nixdorf. We welcome these and the other newcomers to the NeXT market, many of whom are exhibiting products and services on the NeXT-WORLD EXPO show floor.

NeXT is a different company today than it was back in January 1992, at the last Expo. By divesting its hardware business, NeXT has bet the company on its crown jewel, NEXTSTEP, which will ultimately be available on other hardware platforms in addition to Intel PCs.

At this EXPO, you will learn how the proliferation of NEXTSTEP creates opportunities for users and developers. Keynote speeches by NeXT chairman Steve Jobs and Intel chairman Andy Grove are open to all attendees. Other EXPO highlights include the plenary panel discussion on "NEXTSTEP and the OS Wars," the always-popular NoIR user-group auction, and the first presentation of *NeXTWORLD* Magazine's own Best of Breed Awards.

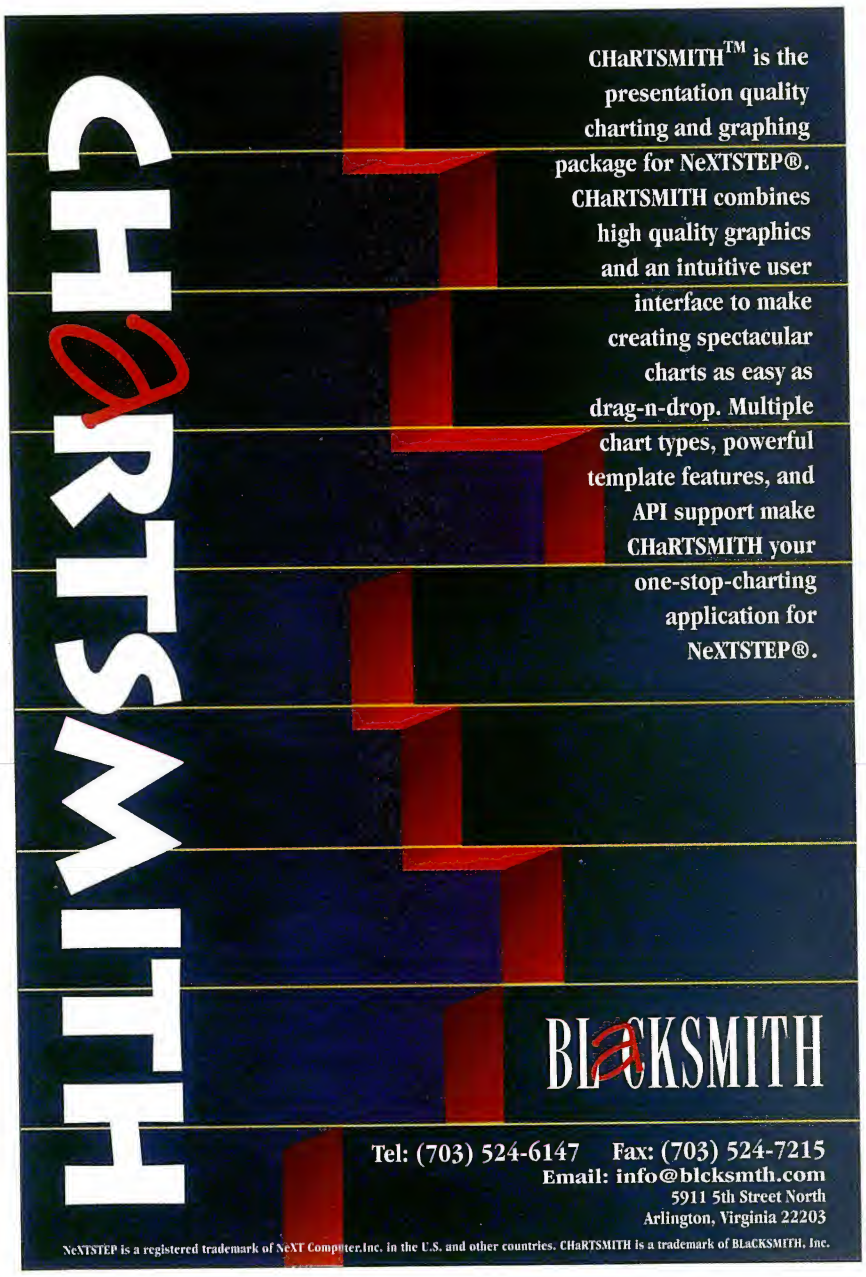
More than 100 companies are exhibiting hardware, software, and services on the show floor. A full lineup of conference sessions for NEXTSTEP developers and users delves deeply into the technical and organizational issues involved in deploying NEXTSTEP for competitive advantage. All attendees are urged to take advantage of these programs by enrolling in either the NeXT-WORLD EXPO Developer or User Conferences. The User Group Program provides an opportunity for international user-group leaders and members to share ideas and information.

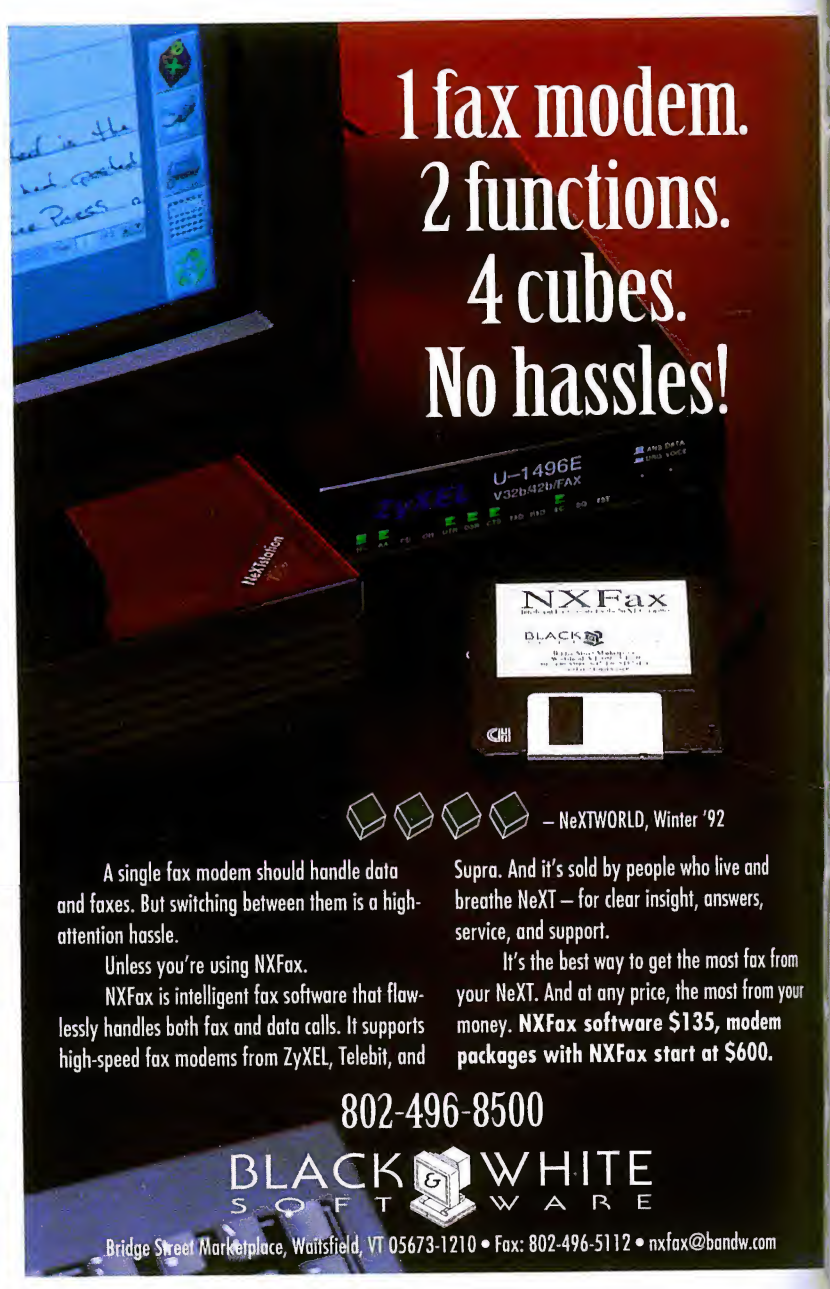
On behalf of the partners in NeXTWORLD EXPO – NeXTWORLD Magazine, NeXT, Inc., and Digital Consulting Inc. – we want to welcome both longtime members of the community and NeXT newcomers to this breakthrough event. Congratulations to each of you for recognizing the importance of NEXTSTEP. Don't tell this to Microsoft or Taligent, but the future is now.

Dan Ruby
Editor in Chief
NeXTWORLD

Jeannine Barnard
Publisher
NeXTWORLD

NeXTWORLD EXPO





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NeXTWORLD Magazine is the comprehensive source of news, product and technology reviews, and in-depth information for IS managers, users, and prospective buyers of NEXTSTEP computers and related products. The magazine is published monthly to paid subscribers and is available on newsstands. *NeXTWORLD* is published by International Data Group (IDG), the world's leading provider of information services on information technology.
Jeannine Barnard, Beth Kamoroff, Dan Lavin, Dan Ruby

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Deanna Bauer, Lisa Byrne, Mike Colby, Chris DeSalvo, Charlie Hurth, Laura Sannicandro, Matthew Schmuck

NoIR (NeXT Organizations InteRnational)
NoIR (NeXT Organizations InteRnational), is the sponsor of the international user-group event at NeXTWORLD EXPO. NoIR is a user group of user groups, dedicated to users helping users. Over 100 NeXT user groups from around the world will be represented.
Conrad Geiger, Dan Lavin

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GENERAL INFORMATION

DEVELOPER CONFERENCE

The NeXTWORLD EXPO '93 Developer Conference offers a broad curriculum to the developer community, focusing on creating both shrinkwrapped applications and client-server custom applications. Because the ability to run NEXTSTEP applications on Intel-based computers is now a reality, both the general-session and conference tracks provide valuable information about porting and distribution. Four separate conference tracks focus on the business and technical aspects of NEXTSTEP application development. Each track provides a different perspective on understanding and working with NEXTSTEP. To benefit most from the breadth of topics offered at the conference, we encourage you to review and attend sessions from several tracks.

USER CONFERENCE

The NeXTWORLD EXPO '93 User Conference offers in-depth information about the use of NEXTSTEP in corporate information systems and on individual desktops. Designed for end users, system managers, and IS strategists, the four-track program focuses on the issues of deploying NEXTSTEP in enterprisewide systems, using NEXTSTEP for maximum benefits, case studies of NEXTSTEP usage in the real world, and comparative looks at the most innovative third-party products in the NeXT market. One session in each track is dedicated to providing a quick start for users who are new to NEXTSTEP, so that they can participate fully in the remainder of the program. Key sessions in each track are repeated so that attendees can participate in as many different sessions as possible.

PRODUCT EXPOSITION

TUESDAY	MAY 25	11:00 A.M. – 6:00 P.M.
WEDNESDAY	MAY 26	9:00 A.M. – 6:00 P.M.
THURSDAY	MAY 27	9:00 A.M. – 12:00 P.M.

Be sure to see over 100 product exhibits and find out why so many companies have embraced NEXTSTEP technology. See the latest in NEXTSTEP hardware and software and meet with users, resellers, and partners.

KEYNOTE SPEAKERS (OPEN TO ALL ATTENDEES)

Steve Jobs
Chairman
and CEO,
NeXT, Inc.

Steve Jobs discusses the future of object-oriented, client-server computing.

Andy Grove
Chairman
and CEO,
Intel Corp.

Andy Grove discusses Intel's '486 and Pentium processors, and NEXTSTEP's place in their future.

DEVELOPER CONFERENCE GENERAL SESSION

YOUR NEXTSTEP APPLICATION AND THEIR HARDWARE

Paul Hegarty, NeXT's Director of Engineering, explains how to port your application to the Intel platform, with ample time to answer your porting questions.

USER CONFERENCE GENERAL SESSION

TEN MOST WANTED

NeXTWORLD Editor in Chief Dan Ruby leads a panel of NEXTSTEP customers, developers, and user-group leaders in reviewing NeXT's accomplishments during the past year and setting the agenda for the year ahead.

DEVELOPER AND USER SESSIONS

NEXTSTEP AND THE OS WARS

Bob Metcalfe, Publisher and CEO of InfoWorld Publishing Company, hosts a panel of industry pundits and NeXT customers as they discuss the alternatives among advanced operation systems in the coming battle for the corporate desktop.

NEXTWORLD MAGAZINE BEST OF BREED AWARDS

NeXTWORLD honors the best and most innovative products in the NeXT market in its first-annual awards ceremony. Cheer on your favorites as a lineup of NeXT community luminaries announce the winners in each product category.

BIRDS-OF-A-FEATHER MEETINGS

Developers are conducting a limited number of special interest-group meetings that were reserved prior to the conference. These meetings are held on Wednesday evening, May 26, 6:00 p.m. – 8:00 p.m. They are open to all Developer or User Conference attendees. See the hand-outs provided at the Registration Area for detailed information.

AT A GLANCE

LOCATION
Moscone Center
747 Howard St.
San Francisco, CA 94103-3181

KEYNOTE ADDRESS (OPEN TO ALL ATTENDEES)

Steve Jobs		
Tuesday	May 25, 1993	9:00 – 11:00
Andy Grove		
Wednesday	May 26, 1993	9:00 – 10:30

USER CONFERENCE

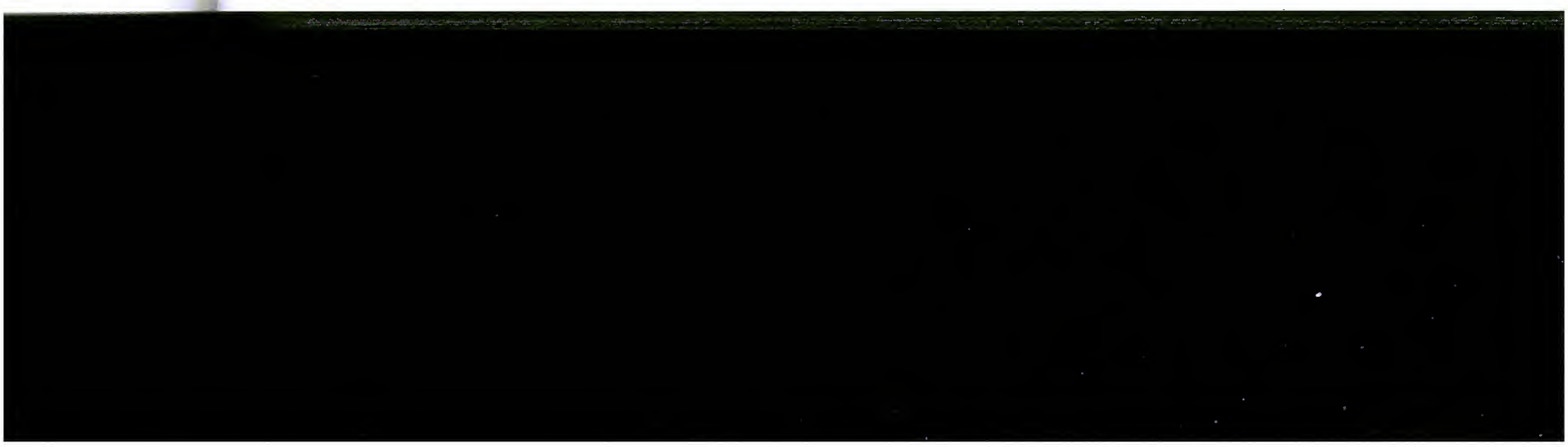
Tuesday	May 25, 1993	11:30 – 7:00
Wednesday	May 26, 1993	10:45 – 7:00
Thursday	May 27, 1993	10:15 – 12:30

DEVELOPER CONFERENCE

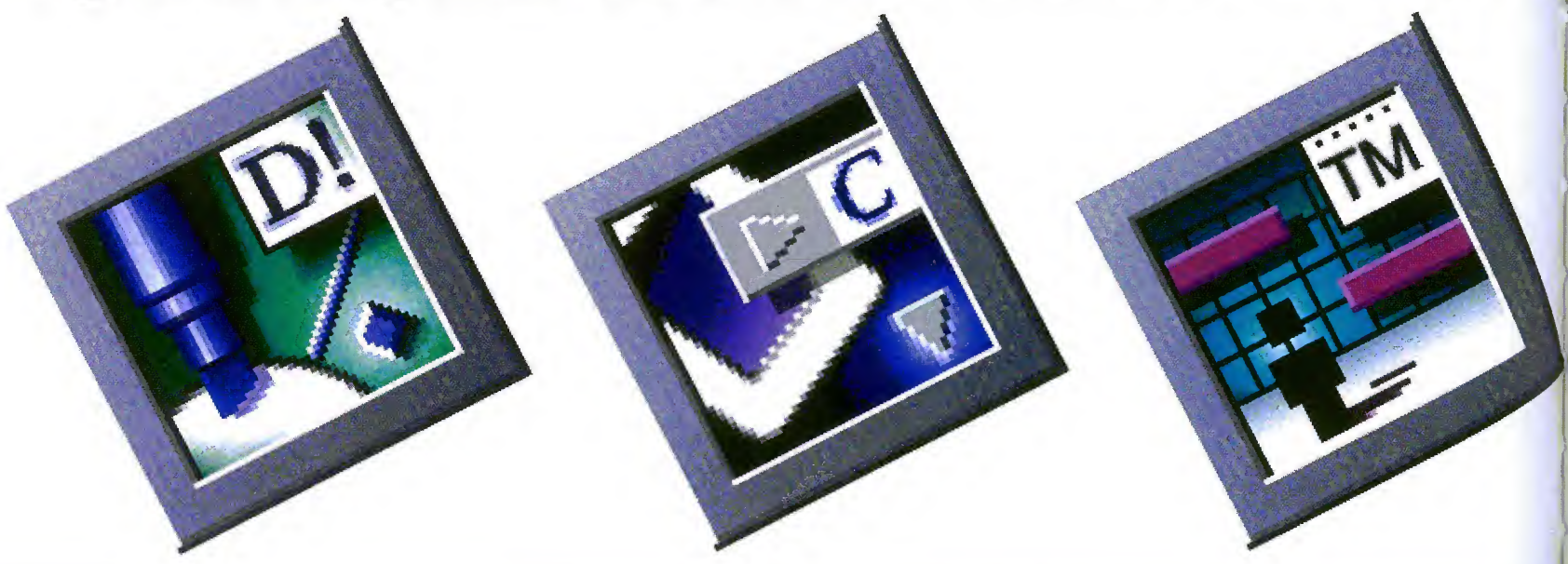
Tuesday	May 25, 1993	11:30 – 7:00
Wednesday	May 26, 1993	10:45 – 7:30
Thursday	May 27, 1993	10:15 – 3:00

USER GROUP PROGRAM

Thursday	May 27, 1993	11:00 – 4:00



The Best Mission Critical Applications Are the Ones You Didn't Have to Write



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By tightly integrating outlines and presentations, Concurrence speeds the production of high-quality proposals and briefings. Print the results to any PostScript® device, from laser printers to 35mm slide makers, or deliver them via NeXTMail to desktops throughout your organization. Now in its second release, Concurrence 2 includes a host of new features including NeXTSTEP object linking, and support for PowerPoint® file conversion.

Introducing TaskMaster

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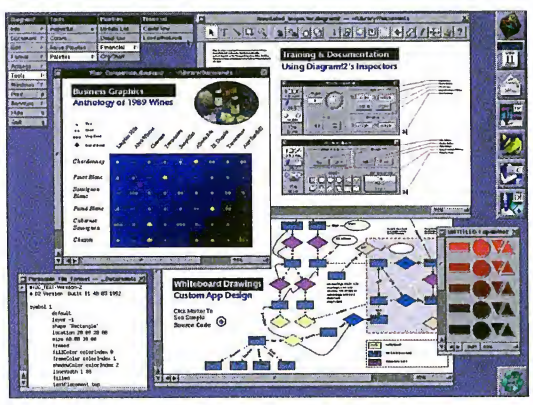

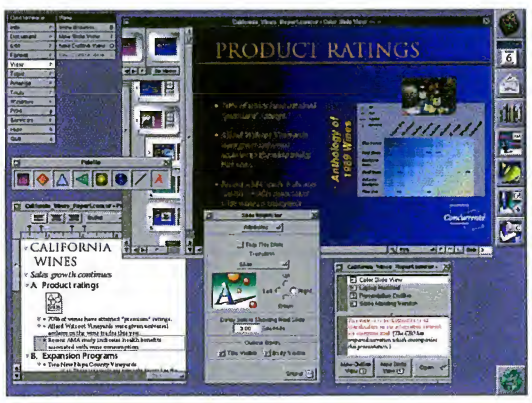

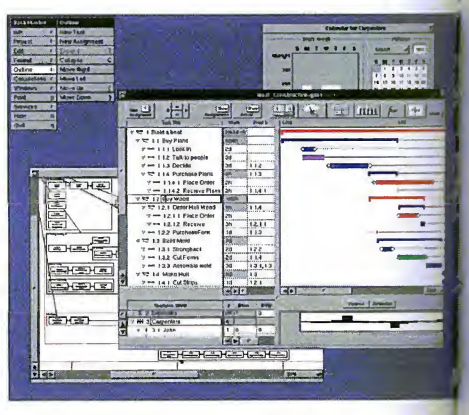

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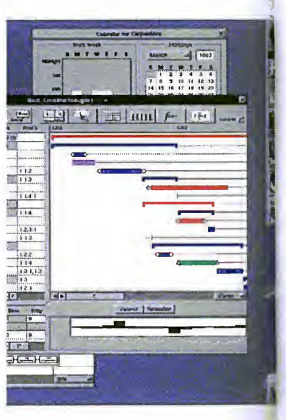

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GENERAL SESSIONS
(OPEN TO ALL ATTENDEES)

HANDS-ON NEXTSTEP TUTORIALS

If you're new to NEXTSTEP, this is your chance to learn the basics . . . and if you're a seasoned developer, you can sign up to spend some time with an expert on the subject of your choice. Located on the show floor, the NEXTSTEP hands-on tutorial area, sponsored by Dell Computer, provides instruction and mini-sessions for both end users and developers.

User Tutorials are scheduled throughout the three days of the EXPO to introduce new users to NEXTSTEP and provide guidance on navigating the workspace, working with applications, and using NEXTSTEP features.

Developer Tutorials provide two learning opportunities: hands-on instruction in "boot camp" issues as well as one-on-one time with a NeXT expert on specific development topics. Sign up for the NEXTSTEP tutorials in Hall D. Registrations are on a first-come, first-served basis.

INTEGRATED TECHNOLOGY CENTER

The Integrated Technology Center simulates an actual office and showcases Local and Wide Area Networking. See how NEXTSTEP technology provides a total solution today by combining the latest advances in hardware with powerful, yet simple-to-use, software. The Center portrays how well suited NEXTSTEP is for today's distributed multinational office environment.

USER GROUP AUCTION

Don't miss this exciting and fun event! A range of products and services from the NeXT community will go to the highest bidder. Proceeds go toward the User Group Program at the EXPO.

EUROPEAN SESSION

On Wednesday, May 26, there will be a special session for all European customers, visitors, and development partners at NeXTWORLD EXPO. The meeting will take place in Moscone Center, Room 112, from 2:00 p.m. to 5:00 p.m.

NeXT's European sales and distribution strategies will be discussed, along with a presentation covering the support and maintenance products NeXT will be offering in Europe. In addition, European developers will have the chance to give a short (10-15 minute) product presentation to European customers.

Following this session, cocktails and hors d'oeuvres will be served. This will be a chance to discuss topics related to NeXT in Europe in a relaxed environment.

DEVELOPER CONFERENCE AGENDA

	Tracks			
	NEXTSTEP Means Business	**NEXTSTEP and the Enterprise**	**Developing NEXTSTEP Applications**	**Under the Hood – Objects and NEXTSTEP Features**
TUESDAY				
9:00 – 11:00	**Keynote: Steve Jobs** **Hall E**			
11:30 – 12:30	Distributing NEXTSTEP Applications ❶ Room 130	Integrating Shrinkwrapped Applications in a Custom Solution ❶ Room 131	The Zen of Debugging ❷/❸ Room 132	Getting Started with Database Kit ❶ Room 133
2:00 – 3:00	A Developer's Guide to Enterprisewide Deployment ❶ Room 130	Developing Objective-C Applications for NEXTSTEP and Microsoft Windows ❶ Room 132	Validating NEXTSTEP Applications and Objects ❷ Room 131	Real-World Database Kit Applications ❷ Room 133
3:15 – 4:15	NeXT's Markets and Their Development Opportunities ❶ Room 130		The Zen of Debugging (repeat) ❷/❸ Room 132	Advanced Database Kit Issues ❸ Room 131 Getting Started with Database Kit (repeat) ❶ Room 133
4:30 – 5:30	**General Session: Your NEXTSTEP Application and Their Hardware** **Hall E**			
6:00 – 7:00	**General Session: NeXTWORLD Magazine Best of Breed Awards** **Hall E**			
WEDNESDAY				
9:00 – 10:30	**Keynote: Andy Grove** **Hall E**			
10:45 – 11:45	NEXTSTEP Means Business ❶ Room 130		Getting More Speed Out of Your Application ❸ Room 132 Introduction to NEXTSTEP Programming ❶ Room 131	Using Release 3 Application Kit Features ❷ Room 133
1:15 – 2:15	Protecting Your Technology ❶ Room 130		UI Performance ❸ Room 133 Building Better NEXTSTEP Applications ❷ Room 131	Object Links in Detail ❷ Room 132
2:30 – 3:30	Nothing's Easier than NEXTSTEP Development ❶ Room 130	Workflow Tools in Custom Applications ❶ Room 131	Writing Extensible Applications ❷ Room 132	Programming with Distributed Objects ❷ Room 133
3:45 – 4:45	Succeeding with Object-Oriented Development ❷ Room 130	Object-Oriented Client-Server Application Design ❶ Room 131	Creating InterfaceBuilder Palettes ❷ Room 132	Working with the Indexing Kit ❷ Room 133
6:00 – 7:30	**General Session: NeXT User Group Auction** **Hall D – NoIR User Group Rooms**			
5:00 – 8:00	**Birds-of-a-Feather Sessions (refer to daily conference schedules for session and locations)**			
THURSDAY				
9:00 – 10:00	**General Session: Bob Metcalfe – NEXTSTEP and the OS Wars** **Hall E**			
10:15 – 11:15	"Dr. StrangeApp, or How I Learned to Stop Worrying and Love the ISVs" ❶/❷ Room 130		Building Reusable Objects ❷ Room 133 Writing Extensible Applications (repeat) ❷ Room 132	
11:30 – 12:30	Strategies for Dynamic Personalized Systems ❶ Room 133	Advantages Inherent in Electronic Documentation ❶ Room 131	Creating InterfaceBuilder Palettes (repeat) ❷ Room 132	Driver Kit for NEXTSTEP for Intel Processors ❷ Room 130
12:45 – 1:45	Creating Success with NEXTSTEP ❶ Room 130	A NEXTSTEP Shared Development Environment ❷ Room 131	Getting More Speed Out of Your Application (repeat) ❸ Room 132	Using Release 3 Application Kit Features (repeat) ❷ Room 133
2:00 – 3:00	Meet the Software Engineers ❶ Room 130	Sketching Out a Better User Interface ❶ Room 131	UI Performance (repeat) ❸ Room 133	Object Links in Detail (repeat) ❷ Room 132

Level of Experience: ❶ None ❷ Some ❸ Advanced

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6:00 – 7:00	**General** **Hall D –**
THURSDAY	
9:00 – 10:00	**Gener** **Hall E**
10:15 – 11:15	Develo Client-S Applicc Rooms
11:30 – 12:30	Issues ir Adminis Rooms

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USER CONFERENCE AGENDA

	Tracks			
	Enterprise Computing	**Using NEXTSTEP**	**In the Trenches**	**Hot Products**
TUESDAY				
9:00 – 11:00	**Keynote: Steve Jobs** **Hall E**			
11:30 – 12:30	Developing and Deploying Client-Server Custom Applications Rooms 120 &121	Introduction to NEXTSTEP Rooms 123 &124	Unifying the Desktop Room 122	
12:45 – 1:45	Rightsizing with NEXTSTEP Rooms 120 &121	NEXTSTEP for Intel: Issues & Answers Rooms 123 &124	End of the Paradox: Operational Productivity Room 122	Productivity, NEXTSTEP Style Room 125
2:00 – 3:00	Why OOP and NEXTSTEP? Rooms 120 &121	Managing Your Data Rooms 123 &124	Enterprisewide Data Access Room 122	Document Creation Room 125
3:15 – 4:15	TBA	TBA	TBA	TBA
4:30 – 5:30	Engineering Client-Server Systems Rooms 120 &121	Publishing with NEXTSTEP Rooms 123 &124	Why NEXTSTEP? Customer Perspectives Room 122	Better Presentations Room 125
6:00 – 7:00	**General Session: NeXTWORLD Magazine Best of Breed Awards** **Hall E**			
WEDNESDAY				
9:00 – 10:30	**Keynote: Andy Grove** **Hall E**			
10:45 – 11:45	CIO Roundtable Rooms 120 &121	NEXTSTEP 3.0 Tips and Tricks Rooms 123 &124	Serving Your Customer Room 122	Emulation and Connectivity Room 125
12:00 – 1:00	Rightsizing with NEXTSTEP (repeat) Rooms 120 &121	NEXTSTEP for Intel: Issues & Answers (repeat) Rooms 123 &124	Training for Success Room 122	Graphics for Business Room 125
1:15 – 2:15	Heterogeneous Networks and NEXTSTEP Rooms 120 &121	Working Together with Collaborative Software Rooms 123 &124	Enterprise Transformation Room 122	Databases Room 125
2:30 – 3:30	Connecting the Enterprise Rooms 120 &121	Service and Support Rooms 123 &124	Custom Application Development Room 122	Spreadsheets and Modelers Room 125
3:45 – 4:45	Managing Application Development Projects Rooms 120 &121	Connecting to the World Rooms 123 &124	Support for Standards Room 122	Information Management Room 125
5:00 – 6:00	**General Session: Ten Most Wanted** **Hall E**			
6:00 – 7:00	**General Session: NeXT User Group Auction** **Hall D – NoIR User Group Room**			
THURSDAY				
9:00 – 10:00	**General Session: NEXTSTEP and the OS Wars** **Hall E**			
10:15 – 11:15	Developing and Deploying Client-Server Custom Applications (repeat) Rooms 120 &121	Portables and Notebooks: Issues & Answers Rooms 123 &124	Executive Information Systems Room 122	Graphic Arts Room 125
11:30 – 12:30	Issues in System Administration Rooms 120 &121	Managing Documents Rooms 123 &124	Corporate Identity Room 122	Multimedia and 3-D Room 125

NEW TO NeXT

With the port to Intel '486–based hardware, thousands of new users will get their first exposure to NEXTSTEP. A special series of four sessions (printed in green) covers the fundamentals of NEXTSTEP, third-party products, and the application of NEXTSTEP technology in organizations. Once they are up to speed, new users and prospective customers can delve into the rest of the conference program and exhibit floor with a solid knowledge base.

NoIR USER GROUP AGENDA

USER GROUP PROGRAM

NoIR (NeXT Organizations InteRnational) is sponsoring a worldwide User Group Program. This year's program theme is "'486 – An Explosion of Users Under NeXT's Big Tent." Sessions focus on two tracks: user-group leadership and member services. If you want ideas to take back to your group, this program is for you. Last year, over 100 groups from around the world were represented, and we expect many more this year. With the explosion of new NEXTSTEP users coming this year and next, this program helps you prepare your NeXT User Group for growth and success in 1993 and 1994.

In addition to the formal events listed here, several special social events will be held. All user-group members attending either the exposition or the conferences are invited to register for the user-group program free of charge.

USER GROUP KEYNOTE

Steve Jobs: '486 – An Explosion of Users Under NeXT's Big Tent

Steve Jobs headlines these exciting user-group activities. The number of NEXTSTEP users in the world doubled last year. With the advent of NEXTSTEP for Intel processors, we anticipate a tremendous explosion of new users and user-group members using both black and white hardware. How do we serve this dynamic new population and tap into their talents? Ideas for 1993 and beyond will be discussed. Also during this session, NeXT will present its "Golden Nugget Awards" for special contributions by user groups during the past year.

	Tracks	
	Leadership Track **Hall D – NoIR User Group Rooms**	**Member Services Track**
THURSDAY		
9:00 - 11:00	**Keynote: Steve Jobs and Others '486 – An Explosion of Users Under the Big Tent**	
11:00 - 12:00	Leadership and Organizing Ideas	Training
1:00 - 2:00	Working with NeXT, Third Party Vendors, and Resellers	Planning and Conducting a Successful Meeting
2:00 - 3:00	Attracting and Keeping Volunteers and Officers	Newsletters
3:00 - 4:00	Fundraising	Getting your Members on the Worldwide Net

— NeXTWORLD Magazine

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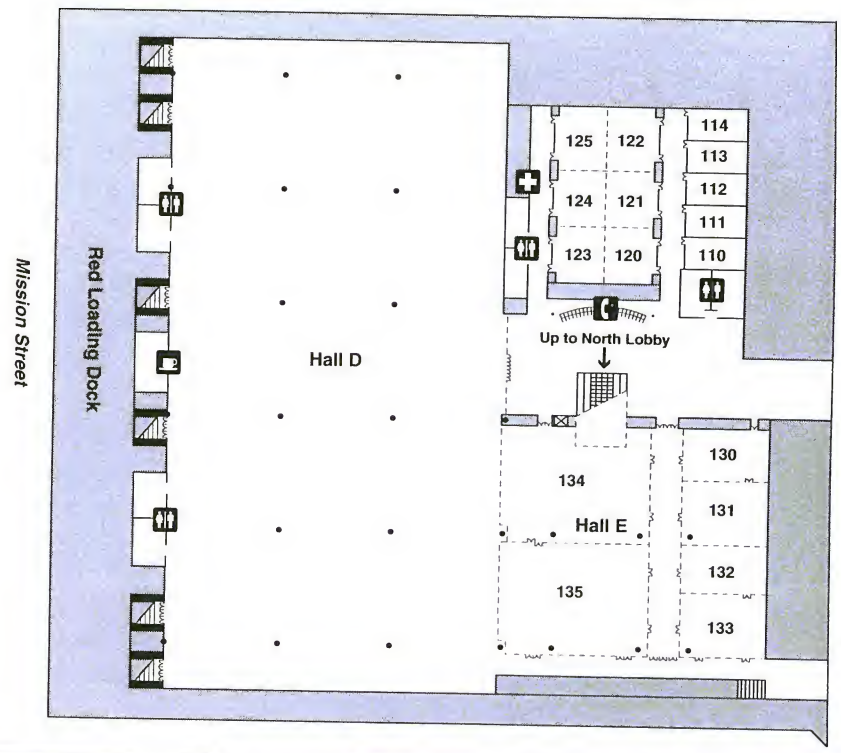
CONFERENCE MAP

GETTING AROUND

The City of San Francisco earned $38.4 million in revenue from parking tickets last year, so unless you want to help fund the Grand Old Dame, we recommend public transportation to NeXTWORLD EXPO. It costs $1.00 to catch any City bus (called MUNI), and a free transfer is good for a few hours. If you get lost, try MUNI information at 671-6864.

A few blocks from EXPO is Powell and Market streets, the City's cable car hub of tourist and shopping activity. You'll find the Visitors Information Bureau (Mon. – Fri., 9 a.m. – 5:30 p.m.; 391-2000), where you can pick up guides, maps, and discount MUNI passes.



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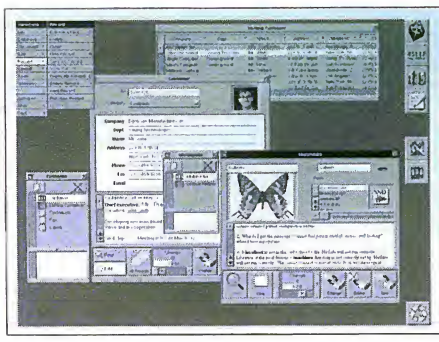
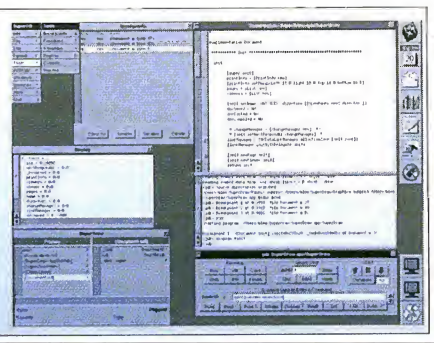
Four Applications To Boost Your Productivity...



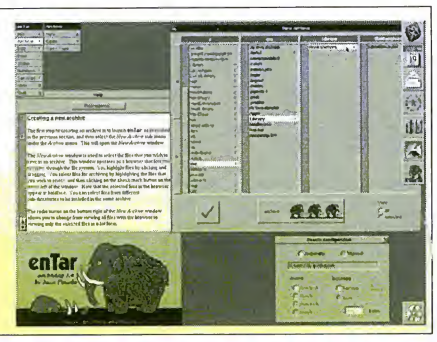
VarioData is a powerful and flexible flatfile database capable of managing text, numbers, dates, images, sounds, files, and key words. An extensive list of tools is available for designing reports, searching for specific data records, integrating with FrameMaker, and much more. VarioData offers an import and export interface with user-definable filters and the ability to easily design and print labels, merged letters, and listings. All of these features within a friendly, graphical user interface. VarioData offers multi-user network capability, and records in use are locked and unlocked automatically. VarioData also includes an extensive context-sensitive help facility.

SuperDebugger can greatly reduce your application development time by providing a more powerful and easy-to-use debugging environment. It features dynamic display of source-level execution, point and click setting of breakpoints, savable debugging environments, user-definable macros, a variable contents display, a dynamic local variables browser, a methods browser, a breakpoints browser, and much more. It also gives users the ability to easily inspect and trace dynamic variables. SuperDebugger is very easy to learn, and includes an extensive context-sensitive help facility.



SuperDraw is a powerful and easy-to-use drawing and presentation program. It features tools for rotating, scaling, skewing, joining, combining, multi-level masking, and blending of graphic objects such as texts, lines, rectangles, polygons, 24-bit color, TIFF and EPS images, and Bezier splines. SuperDraw offers 6400% zoom-in capability, up to 1000 levels of undo/redo, multiple concurrent views of a multi-page document, object/sound linking, varied import/export capabilities, and much more. It also allows you to choose spot process colors from the NeXT Color Panel, then drag and drop them into objects.

enTar will painlessly backup your files and directories onto mass storage devices. enTar works with DAT, 8mm and other SCSI tape devices, and also floppy, optical and other removable disks. In addition, enTar can backup your data to networked disks. Because enTar automatically configures tape devices, it works with most SCSI tape devices. enTar can backup multiple files and directories into a single backup file, and can browse and selectively restore files within the single backup file. enTar also features UNIX data compression and tar formats for backups so that backup data can be exchanged with other UNIX systems like SUN or IBM.



To order or to get a free demo copy, call 1-800-822-3385.

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Also Available...

PhaseScope provides a comprehensive user-interface and general graphical display for analyzing dynamical systems, serving as a specialized front-end to Mathematica's kernel.

Pixelsaver is a complete, extensible system-wide screensaver, background image, and lockscreen utility with full animation, color, sound and network support.

SpinDoctor provides dynamic, animated views of three-dimensional data and saves views in ".spin" files or in EPS files for rapid recall and manipulation.

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NEW PRODUCTS

Athena Design Inc.
MESA Version 1.5, MESA SUNRISE
Booth 208

Athena will announce Mesa 1.5, the only commercially available traditional spreadsheet designed exclusively for NEXTSTEP. Version 1.5 includes functions to extract, sort, and store information into SQL databases. It also acts as a report formatting tool producing professional-quality reports. Mesa includes MOLI – Mesa Object Library Interface – that allows custom programs to interface with spreadsheets and MScript – a scripting language that harnesses the power of your spreadsheet. Mesa now has file compatibility with Excel 3.0, Lotus 1-2-3, SYLK, and 20/20. Athena will also use the NeXTWORLD EXPO to release MESA SUNRISE, the personal version of Mesa.

Black and White Software
NXFax for Intel
Booth 1016

Black and White Software announces NXFax, the intelligent fax software for NEXTSTEP for Intel Processors. Fax sending and receiving is fast and efficient with all of the advantages of Display PostScript imaging. NXFax supports a variety of fax modems, including ZyXEL, SupraFAX, and Telebit WorldBlazer. NXFax takes full advantage of fax address books, cover pages, and a host of new System 3 options, including group faxing, timed transmissions, instant archiving, and automatic printing of incoming faxes. Outgoing call transparency and adaptive answering ensure compatibility with communications programs like UUCP, tip, kermit, Microphone, Dial-Up IP, and Marble Teleconnect. NXFax also shares fax modems with other computers running NEXTSTEP.

Conextions, Inc.
3270Builder, 3270Palettee, 3270Toolkit
Booth 436/439

3270Builder is a powerful development tool for building GUI front ends for existing 3270 applications. Fully compliant with the NEXTSTEP Database Kit and Application Kit, 3270Builder uses advanced pattern-recognition algorithms that make the process of building distributed mainframe applications as easy as dragging and dropping an InterfaceBuilder palette object.

3270Palette provides mainframe connectivity over TCP/IP and SNA networks. It offers NEXTSTEP programmers complete transparency from network topology, protocols, and communication media. 3270Palette allows application development accessing multiple mainframe computers through various networks and gateways.

3270Toolkit is a comprehensive set of tools and building blocks for the rapid development of distributed network applications that connect the NEXTSTEP and IBM operating environments. Applications developed with 3270Toolkit can control mainframe processes, execute jobs, transfer information, and seamlessly integrate mainframe resources into the NEXTSTEP environment.

Cube Informationsystemes
Academy
Booth 1034

Cube Informationsystemes announces Academy, a 2.0 CAD program that extends across many different business fields through its open and flexible structure. The graphics engine already in use on other platforms has been combined with the unique NEXTSTEP graphical user interface. Academy offers necessary tools for diverse fields, from mechanical and electrical engineering all the way to architecture.

Cub'x Systèmes
Intuitiv'3d
Booth 1033

Intuitiv'3d is a complete modeling and rendering environment in three dimensions for all designers, architects, illustrators, and hobbyists. Intuitiv'3d provides the easiest-to-use, fastest, and most powerful interface to access RenderMan functionally. Intuitiv'3d provides innovative features: snapshot rendering, dynamic libraries of objects and shaders, 3D scrapbook, free-form sweeping, automatic generation of shadows and reflections . . . and more.

Epson America Inc.
Progression NX, Epson NX
Booth 119

The Progression NX is designed for the NeXT development environment, and features a full-sized chassis. It includes 36MB of RAM, Wingine graphics-acceleration technology, and 2MB of RAM with RAMDAC support for 1024-by-786 resolution. The Epson NX is targeted at NeXT end users and offers the same technology as the Progression NX, in a smaller, low-profile desktop chassis.

Goldleaf Systems
eXTRASCAN, eXTRAPRINT, eXTRASLIDE
Booth 628

eXTRASCAN CJ10 is Goldleaf's scanner driver for the Canon CJ10 Scanner/ Printer/Photocopier. Accessible from any NEXTSTEP publishing application, eXTRASCAN lets you choose custom resolutions from 72 to 400 dpi, adjust color balance and gamma correction to get the highest quality, as well as scan whole pages or specific areas of an image at 8-bit grayscale or 24-bit color.

eXTRAPRINT, for quick and accurate color proofs on the Canon CJ10 from any NEXTSTEP application. Utilizing NEXTSTEP's built-in display PostScript Level 2, eXTRAPRINT offers the only true Level 2 support for the CJ10. eXTRAPRINT appears in the Print panel with output devices. It allows full control over output resolution, media format, and color balance through the Print Options panel.

eXTRASLIDE enables users to create high-quality color slides on their desktop through the following: eXTRASLIDE software, the Polaroid CI-5000 Film Recorder, two camera backs, an automatic film processor, a slide mounter, and an overhead viewer. A built-in 640K image buffer helps produce exposures in as little as two minutes, and interchangeable camera backs output images on 28 different types of film from 35mm to 4-by-5 format.

Quicker Databases!

Store It!

***Quick*Base™** is an SQL database server designed for NeXTSTEP. *Quick*Base™ includes a DBKit adaptor, an Objective-C library, an invoicing application, and a number of database utilities. It supports basic types including character strings, integers, floating point numbers, date, time, and BLOBS (text, image, files, and folders).

Globalize It!

***Quick*Connect™** replicates information between databases through electronic mail. With *Quick*Connect™ database changes automatically migrate to other locations. Each corporate location may read and write its own data, and read data originating from other locations. Message numbering and recovery mechanisms make reliable and inexpensive database replication possible.

Report It!

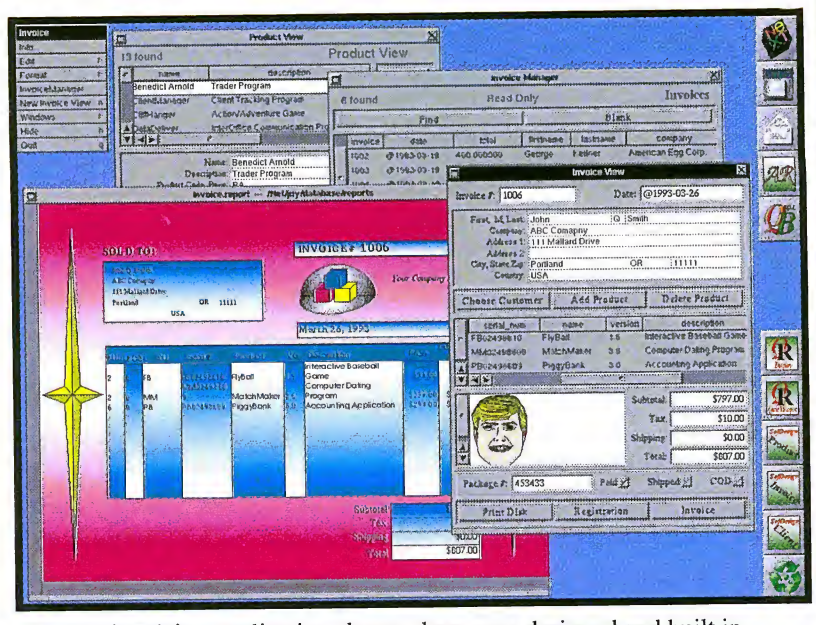
***Quick*Report™** is a generic reporting tool for NeXTSTEP applications. With *Quick*Report™ you can draw the standard look of your report and specify where you want your data to go. Then watch as your information flows onto your custom report. It's that simple. Users can design reports once and use them on different sets of data. *Quick*Report™ reads data from ASCII files and can be used to generate reports for any application.

Construct It!

***Quick*Base Object ToolKit™** is a library of objects that can be used to construct database applications. The objects are multi-user safe and take advantage of application notification. This means that data on your application's screen will automatically update when the database changes. The TableView, FormView and DocumentView objects are provided with this powerful toolkit.

Automate It!

Database Builder™ automates the construction of database systems. Design screens that automatically update as the database changes. Specify relationships between database tables. Build the custom applications you and your customers need. And do it right the first time. Database Builder™ produces Objective-C source to integrate your Interface Builder windows with the *Quick*Base Object ToolKit™.



The invoicing application shown above was designed and built in three days using QuickBase Object Tools, QuickReport and the QuickBase database server.

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Booth 103 at the NeXTWORLD EXPO.

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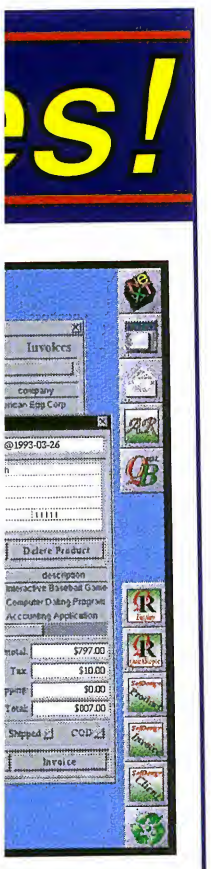


Hypersight Inc.
Sight-C-ing
Booth 116

Sight-C-ing, a multiuser CASE tool package, enables you and your team to design, build, and change applications more effectively. Included in this package is a source browser, a configuration manager, and an object-server application. Features include: project tree to group classes; class hierarchy tree; source browser; indexing of code elements; Objective C, C, and C++; revision control, configuration management, and client-server data-sharing architecture; dynamic tool palette for customization; and interaction with Diagram!, Edit, and other applications.

Imagine Multimedia, Inc.
Callisto
Booth 228

Callisto is a highly intuitive interactive multimedia publishing application that allows you to create nonlinear, interactive multimedia presentations and point-of-information networks. Callisto lets you produce these interactive multimedia applications in a drag-and-drop graphical environment, where you spend your time designing the media and the interaction rather than writing scripts or code. Callisto is a standard NEXTSTEP application, incorporating PostScript multifont scalable text, CD-quality sound, photorealistic images, and worldwide networking standards. With NEXTSTEP's support for Novell Netware and AppleTalk, Callisto is also a natural fit for existing Macintosh and PC networks. The final beta version is available May 25, 1993; commercial ship date is July 1, 1993. Callisto is compatible with both NeXT and NEXTSTEP-for-Intel hardware.

Insight Software
ElectroWorX
Booth 821

ElectroWorX is a powerful OCR application for NEXTSTEP that is based on Xerox's ScanWorX API. Along with support for ten languages, ElectroWorX offers batch processing, templating, and multipage TIFF support. ElectroWorX can be trained to recognize even "dirty" documents with multiple columns and typefaces, as well as interspersed illustrations.

Northstar Technologies
STREETwise Trader
Booth 815

Northstar Technologies announces STREETwise Trader, the premier equity application for hedge funds. Designed by a trader for traders, STREETwise is a complete system, offering comprehensive deal management, securities-position tracking, and trade-execution reporting using the SYBASE database.

Network Express Inc.
Network Express ISDN Router
Booth 708

Network Express' Dial-Up Router provides the ability to dial up bandwidth as you need it. It uses inverse multiplexing to efficiently exchange data between remote sites. The router uses switched digital services (ISDN and SW56) for the bandwidth required to access numerous data communication and LAN-to-LAN applications in business, government, and education environments.

Objective Technologies Inc.
Impress
Booth 216/315

NeXTWORLD EXPO will showcase Impress, the new report-writer from Objective Technologies. With Impress, you can create reports of any level of complexity by dragging and dropping the layout and accessing the data with the point-and-click query builder. Impress solves the problems associated with creating, formatting, and printing reports quickly and easily without programming in Objective-C or PostScript.

RDR Inc.
@image
Booth 918

RDR will unveil its @image presentation-graphics software for NEXTSTEP and Intel. RDR's @image is a powerful desktop-presentation package that allows end users to easily create and present briefings and presentations under NEXTSTEP. @image builds multipage, multimaster slide presentations that can be viewed locally or remotely. @image is a full-featured end-user product designed entirely to take advantage of the latest features of NEXTSTEP. @images's authoring capabilities include slide drawing, per-page sounds, graphical translations, and object links. RDR announces that @image is now available for Intel-based systems.

Ridgeback Solutions
NetWatch
Booth 222

NetWatch, the first SNMP network-management solution for NEXTSTEP, will be announced at the NeXTWORLD EXPO. NetWatch allows the user to monitor any SNMP MIB-II device, such as a router, bridge, concentrator, or workstation, with an SNMP agent. Support is provided for setting up unlimited topology maps with background graphics. Alarms may be set for any MIB-II variable to automatically monitor key devices. NetWatch can send e-mail, dial a pager, flash the node alarming, and run a user program as a result of an alarm occurring.

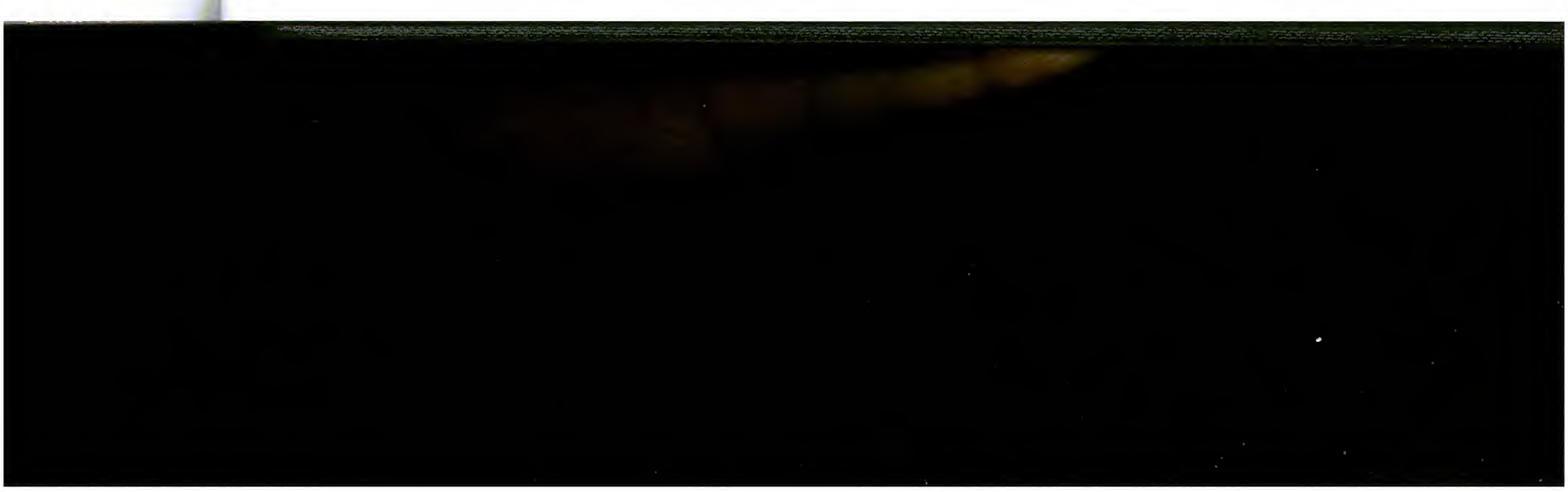
TMSGiubtt
CRANACH, LANSTON, MANET
Booth 123

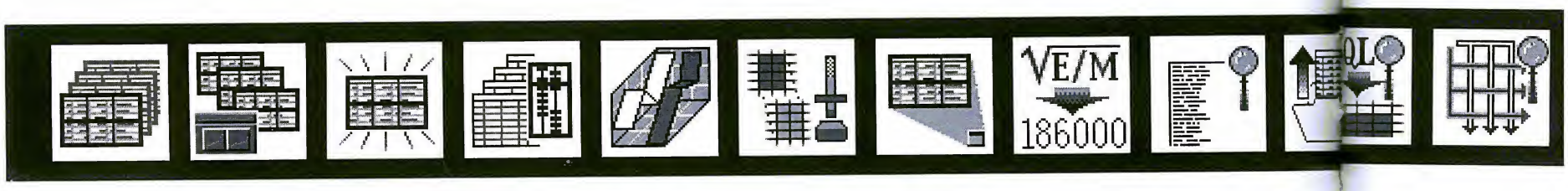
TMS announces the release of three new products.

CRANACH: a high-end image processor that fills the gaps between DTP and image processing. Cranach, a modular component of the innovative publishing environment, 1VISION, considerably increases productivity in high-color processing.

LANSTON: Display PostScript systems have long lacked adequate text-layout and design programs. Lanston addresses these issues. It is a professional text-layout and design program for NEXTSTEP 3.0 and NEXTSTEP-for-Intel operating systems.

MANET: The third modular component of the 1VISION publishing environment, Manet is a universal vector-graphic tool that will set new standards for creative PostScript software.





Athena Design

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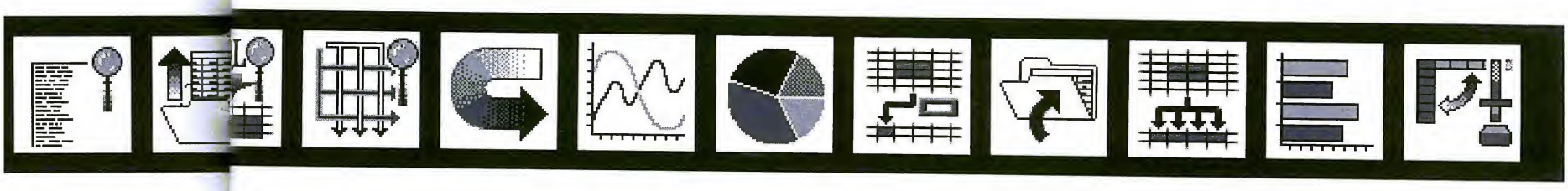

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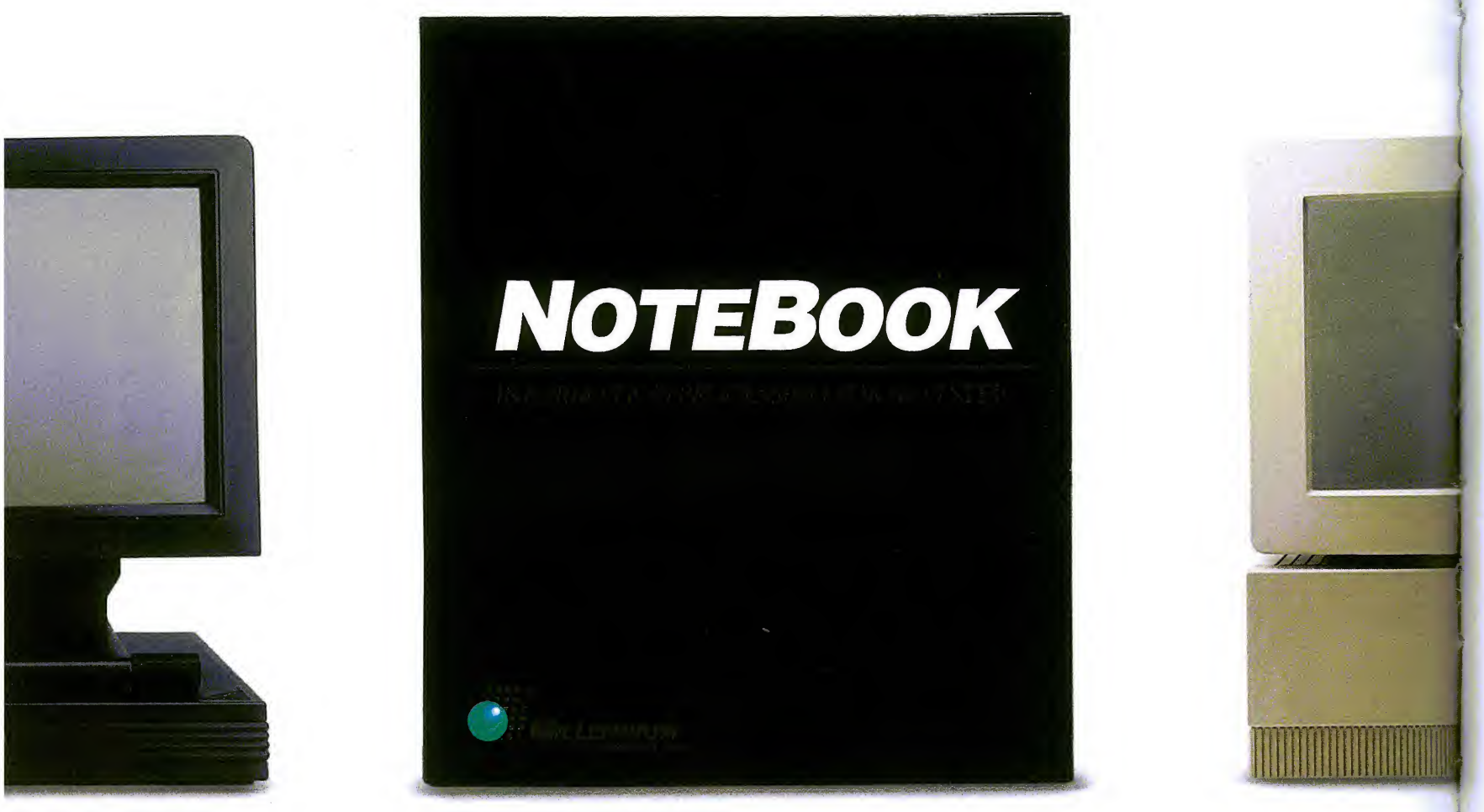

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GP-IB Application
Disk Drive Utility

Adamation
Oakland, CA
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Who's Calling? is a fully automated client-management system. It allows you to track client information, chronicle conversations, and print out various reports and mailing labels. Data can be shared locally or remotely. Who's Calling? seamlessly integrates with What's Happening? for automatic tickling of call backs and scheduling appointments. What's Happening? is a scheduling application for individuals and workgroups. You can schedule events for various personnel, view and print calendars in several formats, and easily locate mutually available time slots for group meetings. Other features include a tickler system and the ability to create recurring events and attaching multimedia. Live Wire is a collaborative group editor. It allows mutliple users on a local and remote network to simultaneously create and edit documents, using text, sound, and images. Live Wire also has a session log that time-stamps comments for network conferencing. It also has a live messaging system.

Adobe Systems Incorporated
Mountain View, CA
Booth 217

AEC Software
Sterling, VA
Booth 636

AEC Software develops project-management and scheduling programs. FastTrack Schedule is a simple Gantt chart scheduling tool. Within minutes, you can be visualizing all of your projects, tasks, activities, and events in an elegant time-line format that can be enhanced for presentation power. You can painlessly draw activity bars right on a chart, right on screen.

Alembic Systems International Ltd.
Englewood, CO
Booth 326

Alembic Systems is an international distributor of quality products for NEXTSTEP. In our booth you can see demonstrations of many new European products, including software for 3-D modeling, animation, image editing, and office automation. As an Auspex partner, Alembic Systems will also be demonstrating the latest Auspex NetServer, which provides three to five times the access speed of other high-end servers – the natural choice to help you meet the increasing demands of today's network environments.

Altsys Corporation
Richardson, TX
Booth 815

Altsys Virtuoso is the complete PostScript-language design and production program for NEXTSTEP, NEXTSTEP for Intel, and SPARCstations running Solaris. As you'd expect from Altsys, the creator of award-winning programs like Aldus FreeHand and Fontographer, Virtuoso provides UNIX users with unsurpassed drawing and text-handling capabilities in one easy-to-master program.

Anderson Financial Corp.
Springhouse, PA
Booth 531

App Foundation, Inc.
Silver Spring, MD
Booth 708

For those who wish to be busy with other things than planning their schedule, the App Foundation, Inc. introduces *Office Etiquette*, the office-productivity-enhancement application. *Office Etiquette* offers personal- and group-scheduling utilities as well as other client-management utilities.

Athena Design, Inc.
Boston, MA
Booth 208

Mesa v1.5 will be shown in Booth 208. Pick up your free demo today. The Mesa spreadsheet was the first commercially shipping application for NEXTSTEP for Intel. Come join us for demonstrations by custom programmers. See what Mesa can do for your organization.

Axsys, Inc.
Bala Cynwyd, PA
Booth 111

The only accounting application for NEXTSTEP, Fiscal Dimension is a checkbook-style general-ledger program that performs double-entry bookkeeping with single-entry ease. Fiscal Dimension will handle your checkbook and keep up with the complex reporting requirements of large corporations.

Bäcchus, Inc.
Santa Monica, CA
Booth 317

See Pixel Magician and Image Agent – Advanced Image Conversion application for NEXTSTEP. Pixel Magician converts to and from all the popular image file formats: TIFF, GIF, PICT, PCX, JPEG, RIB, TARGA, FAX, PS, EPS, Windows BMP, Sun Raster, and others. Other features include: Mass Conversions, Image Viewing, Scaling, Rotating, Color Quantization, Dithering, PostScript to Raster, and Variable Image Resolutions. Image Agent allows users to drag and drop image files directly into NEXTSTEP applications.

Bell Atlantic Business Systems Services
Frazer, PA
Booth 923

Bell Atlantic Business Systems Services and Bell Atlantic Computer Technology Services (CTS) have been named by NeXT as the official service provider for NeXT hardware and printers worldwide. Bell Atlantic will provide maintenance service for NeXT systems in the U.S. under warranty and will also offer post-warranty support services. Bell Atlantic CTS-San Francisco will provide NeXT equipment repair and help desk-support services from its Hayward, California, facilities.

BenaTong
Columbus, OH
Booth 130

We will be demonstrating our complete line of applications: Dialer for hands-free-dialing, TimeSync to regulate the computer's clock, wywo message-taking software, and Power-Guardian to monitor a UPS and perform an orderly system shut down. We will also be unveiling two new applications at the show. Giveaways (coffee cups) several times an hour.

BenchBuilt Software Co.
Houston, TX
Booth 1017

Meet TimeScape, the newest drag-and-drop project manager designed specifically for NEXTSTEP. It features project and subproject templates, Gantt charts, PERT charts, and Mesa spreadsheet support. Subprojects can be nested to any depth.

THE FASTEST WAY TO PUT 25 GB ON A SINGLE TAPE.

The CY-8500 can store up to 25 GB on a single tape, at speeds of up to 90 MB per minute, completely unattended.

How? With hardware data compression that can boost capacity by up to five times.

No other 8mm tape drive can match the capacity, speed, and price-performance of this best-selling drive.

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FLEXIBLE. The CY-8500 is plug compatible with virtually every computer system. Rack mounting options, dual drive configurations and a variety of cable lengths ensure a seamless fit into your computing environment. And as storage needs grow, you can upgrade to our ten tape library, capable of managing between 25 GB and 250 GB–all without manual intervention.

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IBM S/38	Wang
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benchMark Developments, Inc./Caffeine Software
Lexington, KY
Booth 1021

TIFFany offers users of NEXTSTEP a suite of mathematical algorithms for digital imaging. Images may be enhanced and manipulated using various tools for color correction, noise reduction, resizing, image composition, morphing, and color separation. Digital-imaging artists and animation-creators may use TIFFany's morphing and warping algorithms to create stunning animations. bMD is offering TIFFany at a special EXPO rate of $295, with educational licenses available at $95.

Black and White Software
Waitsfield, VT
Booth 908

NXFax is intelligent fax software for NEXTSTEP. Fax sending and receiving is fast and efficient with all of the advantages of Display PostScript imaging. We will be demonstrating NX/Fax with a variety of fax modems including ZyXEL, SupraFAX, and Telebit Worldblazer. Special show prices for NXFax and NXFax/ZyXEL packages will be offered.

BLaCKSMITH, Inc.
Arlington, VA
Booth 738/837

CHaRTSMITH is the presentation-quality charting and graphing package for NEXTSTEP. CHaRTSMITH combines high-quality graphics and an intuitive user interface to make creating spectacular charts as easy as drag and drop. Multiple chart types and powerful template features make CHaRTSMITH your one-stop charting application for NEXTSTEP. Stop by our booth and let us show you why CHaRTSMITH should be your charting and graphing application.

Blue Rose Systems, Inc.
Los Altos, CA
Booth 735

Rosebase is an ANSI SQL–compatible realational database engine with a client library and DBKit adapter. Rosebase supports a full range of data types, aggregates, subqueries, multiple indices, and full referential integrity. Rosebase is so reliable that we offer a refund to anyone who reports an original bug.

Booz-Allen & Hamilton Inc.
Vienna, VA
Booth 108

Minerva is a distribute-concept-based information-retrieval system designed for enterprisewide networked environments. Through a single drag-and-drop interface, users can enter a templated concept, text pattern, or Boolean expression to be searched for. Minerva unobtrusively interrogates all Minerva-aware data sources connected to the network, including textual, relational, and multimedia, for relevant hits. The user is presented with a relevance-ranked list of heterogeneous data and can then either save the results for later use, fetch the original document, or use other NEXTSTEP applications to analyze and manipulate the data. Minerva also provides knowledge-engineering tools for building and maintaining concept bases.

Ciusa, Inc.
Minneapolis, MN
Booth 128

Ciusa is a software developer dedicated to the fields of graphics, multimedia, and general productivity, bringing workstation-software power down to personal-computer software prices. Ciusa applications include Day Tripper personal/group scheduler, ArtBursts art clips, SoundHouse sound editor, SoundBursts sound clips, Rhythm King sound-pattern programmer, NoteAbility music notator, and Warpit image-transformation application.

Compaq Computer Corporation
Houston, TX
Booth 428

Come see shy Compaq is the right platform choice for NEXTSTEP. The high-performance solutions and easy network interoperability may surprise you. Our demo network will include a variety of Compaq computers running NEXTSTEP. We'll even have NEXTSTEP on portables and laptops.

Conextions, Inc.
North Andover, MA
Booth 722/724

Conextions will be demonstrating its complete line of IBM mainframe and AS/400 communications products for NEXTSTEP, including the 3270Vision and 5250Vision terminal-emulation products, the new 3270-Palette and 3270Toolkit Objective products, and their Coax-Access gateways. Conextions will also be debuting 3270-Builder, the most advanced IBM re-engineering and downsizing tool on the market.

Cube Informationsystemes GmbH
Stuttgart, Germany
Booth 634

Academy is the first 2-D CAD software for various fields, from mechanical and electrical engineering all the way to architecture. OpenEnd – Vector Graphics Processing: Conversion, preview, and high-quality output from every NEXTSTEP software to more than 50different plotters, cutting plotters, drilling, and milling plotters. AvantVector – Professional program to vectorize bitmap scans to vector graphics with full color recognition. You can edit the graphics in Avant Vector, Adobe Illustrator, and Altsys Virtuoso.

The Cube Route
Cambridge, MA
Booth 218

Cub'X Systèmes
Paris, France
Booth 1033

Enter the third dimension with Intuitiv'3D, the complete 3-D creation environment for NEXTSTEP. Its ease of use and sophisticated tools will make you create a brand new world of 3-D realistic scenes.

Come and see Cub'X-Window, the fastest X for NEXTSTEP. Cub'X-Window provides an X11R5 client-server architecture with numerous functionalities, and X display options to best answer your specific needs.

Data General
Westboro, MA
Booth 608

At the Data General booth at NeXTWORLD, we will demonstrate NEXTSTEP for Intel on our Dasher '486-class PCs. And our PCs come preconfigured and preinstalled with NEXTSTEP for Intel, making it the most complete and easy solution for NEXTSTEP for Intel developers and users. Data General has been a strategic partner with NeXT longer than any other vendor – you'll see why when you come to our booth. You'll also learn how AViiON servers finished in first place, well ahead of any other vendor in a recent poll conducted by *ComputerWorld* magazine. These high performance AViiON servers, coupled with high-capacity, high-performance CLARiiON disk arrays, will show you why Data General is the best choice for a partnership in NEXTSTEP-for-Intel-based client-server solutions.

DBSA, Inc.
Booth 818

Experience Dataspace – the completely graphical environment for your relational-database logical schema design, engi-

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THIS PAGE IS IN CELEBRATION OF THE COMING AGE OF NeXTSTEP '486

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Power through partnership.
In the coming of age of NeXTSTEP '486, Alembic Systems International and Auspex Systems are partnered to bring your network the combined power and speed that until now has been elusive. With the latest generation of Auspex NetServers providing 3-5 times the throughput speed of today's high-end data servers at a dramatically lower cost per seat, unparalleled network productivity is an attainable goal.

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Alembic Systems International Ltd.

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303.799.6223 • 800.452.7608
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Logic suggests it is better to deal with
the real possessor of power than
the temporary guardian of it.
Such a statement makes good sense to those looking into the power of object-oriented environments.

NeXTWORLD Expo Booth #326

Come to Alembic Systems'
NeXTWORLD Expo booth (#326)
and witness for yourself the combined power of Auspex, Intel, and NeXTSTEP applications—
a partnership of software and hardware
to help power your business down the road
to continued success.

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neering, custom forms, site-specific customization, and database administration all performed in a completely point-and-click, drag-and-drop environment. You have to see it to believe it. Dataspace – you can't afford not to have it.

DCI
Andover, MA
Booth 122

A high-technology education and management consulting firm specializing in software conferences, trade shows, and user-group conferences, DCI offers a full range of services to help companies achieve maximum efficiency and productivity.

Dell Computer Corporation
Austin, TX
Booth 508

Dell Computer Corporation will present a variety of high-performance workstations running NEXTSTEP for Intel, ranging from the low-profile Dell 466L to Pentium-based solutions to the optimum NEXTSTEP '486 machine – The Dell DGX. Dell Computer Corporation will also demonstrate NEXTSTEP for Intel interoperability with other systems.

Detective Tools Corporation
Austin, TX
Booth 323

The Detective Toolkit will be of interest to police, fire, and federal investigators. The Toolkit uses proprietary technology to link serial (repeat) offenders to the crimes they commit. International corporations concerned about employee safety in foreign countries may wish to consider a modified version of the system.

Distributed Processing Technology
Maitland, FL
Booth 708

DPT will be introducing its new line of SmartCache III SCSI host adapters, a third-generation family of products that delivers significant breakthroughs in cost, performance, and design. SmartCache III offers embedded certified driver support in all of the major operating systems, ensuring universal SCSI connectivity, compatibility, and performance.

eCesys
Anchorage, AK
Booth 708

Ecesys offers Intel-based NEXTSTEP solutions at extremely competitive costs. Our first offering features '486 DX/2 with local bus and fast graphics. eCesys is operated by NEXTSTEP developers who understand your needs.

Epson
Torrance, CA
Booth 119

Epson's Progression NX and Epson NX PCs are ideal for NEXTSTEP developers and users respectively. Both systems feature Wingine-graphics architecture and expansion capabilities that are certified by NeXT for compatibility with the NEXTSTEP operating system. Epson's ES-600C and 800C scanners, well-suited for the NEXTSTEP environment, will also be shown.

Firstsoft Inc.
Los Alamos, NM
Booth 818

Come and see ScriptWriter, the graphical UNIX management tool. ScriptWriter isolates you from the minutae of CShell and provides a complete graphical environment for UNIX. It's NEXTSTEP for the rest of UNIX.

Goldleaf Systems
Larkspur, CA
Booth 628

Goldleaf Systems will display tools and solutions for technical publishing and graphic arts in conjunction with its strategic partners: Epson, Linotype-Hell, Polaroid, ULTRE, and X-Rite.

Harvard Toolworks, Inc.
Harvard, MA
Booth 910

KitchenSync provides 18-bit digital audio (analog, SPDIF, AES/EBU input and output), SMPTE video time code and 18-bit audio, MIDI, and SMPTE time-code products for NEXTSTEP and NEXTSTEP for Intel processors.

Highland Digital, Inc.
Palo Alto, CA
Booth 127

HSD Computer
Mountain View, CA
Booth 1029

HSD offers scanning, publishing, document-image management, optical-character recognition, voice recognition, and linguistics tools that are renowned for their advanced technology, innovative functionally, and integrated ease of use. They provide users with powerful tools that enable them to add a variety of functionality to existing NEXTSTEP software and hardware.

Hypersight, Inc.
Red Bank, NJ
Booth 116

Sight-C-ing, a multiuser CASE-tool package, enables you and your team to design, build, and change applications more effectively. This package contains a source browser and configuration-management application. Features include: project tree to group classes; class hierarchy tree; source browser; indexing of code elements; Objective C, C, and C++; revision control; configuration management; client-server data-sharing architecture; dynamic tool palette for customization; and interaction with Diagram!, Edit, and other applications. Visit our booth to enter the free drawing for a copy of Sight-C-ing's first release.

i•Link GmbH
Berlin, Germany
Booth 718

Come see our products: mix – the NEXTSTEP telecommunication system (fax, modem, voice-mail, telephone), both for NeXT computers and '486 PCs; direct – the first address directory based directly on the NEXTSTEP systems address database; niCe – the programmer's tool kit for RTF source-code files; and ticc – synchronizes the NeXT system clock with radio-transmitted absolute time signals.

Imagine Multimedia
Ann Arbor, MI
Booth 228

Imagine Multimedia, the leading developer of interactive multimedia publishing (IMP) software for NEXTSTEP-compatible computers, is proud to announce Callisto and Callisto CD-I, its new line of interactive media-publishing tools. These tools allow creative professionals to create nonlinear multimedia presentations as well as publish interactive applications for playback on CD-based players, including Compact Disc-Interactive (CD-I). Media Station, Imagine's multimedia data manager, has been shipping since 1990 and is installed in over 500 sites worldwide.

Impact Software Publishing, Inc.
New York, NY
Booth 928

Impact Software Publishing, Inc. offers VarioData (a powerful and flexible database), Super-Debugger (for reducing application development time), Super-Draw (a powerful and easy-to-use drawing presentation program), enTar (for backing up to DAT, 8mm, and other devices), PhaseScope (a Mathematica front end), Pixelsaver (a screen-saver

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Forging metaphors for NeXTstep computers and the people who touch them

Since 1988

Information surfing. Dangerous. Fun. Incredibly productive with NeXTstep at your fingertips. **nesteggs** keeps the inner workings of NeXTstep honed and deft while you finish your work.

Shining stars at The Digi Lab, Windward Energy, Bozell (now Temerlin McLaine), & The Media Center recall nesteggs fondly.

In situations that involve those subjects we're not versed in, contacts from throughout the NeXT community provide expertise - companies such as Bitwise User Interface Graphics for UI & icon design, The Weston Group for marketing & PC mastery, Square Two for design and Cube Technologies for software development.

For instance, The Digi Lab needed a NeXT RIP for their IRIS color printer. **nesteggs** contacted Cube Tech who created **Cornea**, a Front End Processor & RIP that processes images 5 to 20 times faster than the standard hardware/software solution IRIS offers.

As fun & productive as NeXTstep computers are, they are still tools, and like using any sharp shovel to bite into sandy loam or clay gumbo, your focus is on getting the hole dug and the work done, not on the shovel's artisanship. **nesteggs** clears the way so you can get to your work and get it done.

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The power of NeXTStep development can be yours:

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and lock-screen utility), and SpinDoctor (for viewing 3-D data).

Insight Software
Portland, OR
Booth 827

Insight Software is your complete imaging solution. ElectroWorX is a powerful OCR application for NEXTSTEP that is based on Xerox's ScanWorX API. ElectroFile is an intuitive, image-based electronic filing system for retrieving any type of document native to NEXTSTEP. ObjectWare is also available for the development of mission-critical imaging applications.

Insignia Solutions, Inc.
Mountain View, CA
Booth 816

SoftPC 3.0 with Windows is a powerful software program that lets you run the latest MS-DOS and Windows applications on NEXTSTEP for Intel or a NeXT computer. Microsoft Windows 3.1 and MS-DOS 5.0 are pre-installed. SoftPC 3.0 with Windows protects your DOS investment by letting you run PC applications on NEXTSTEP for Intel.

Integrated Software Systems
Libertyville, IL
Booth 708

The Parrot product is a tool that enables users to completely automate demonstrations on the NeXT machine. The Parrot will record all keystrokes, mouse movements, and sound for playback. It features dubbing of events, dubbing of sound, multilanguage support, hide on playback, and automatic start-up on launch.

Intel Corporation
Santa Clara, CA
Booth 422

Intel welcomes NeXT to the multivendor world of Intel-based business solutions. At NeXTWORLD EXPO, Intel will show the performance and rapid application development benefits of NEXTSTEP on Intel. You'll see how the broad range of powerful Intel '486 and Pentium processor–based systems bring out the best in NeXTSTEP's state-of-the-art object-oriented development environment.

Jana Publishing
Toronto, Ontario
Booth 118

Jana Publishing will be selling a CD ROM with about 500MB of NeXT-related software for only $19 at booth 118. This CD-ROM is a must for every NeXT user so please drop by our booth and get a copy.

Lighthouse Design, Ltd.
San Mateo, CA
Booth 320

Lighthouse Design is the premier publisher of NEXTSTEP's best-selling productivity applications: Diagram! and Concurrence. For NeXTWORLD EXPO, it will be showing new releases of both applications, and introducing an exciting new addition to the Lighthouse suite: TaskMaster, NEXTSTEP's first comprehensive project-management program. In addition, Lighthouse will have information and documentation on its Foundation Classes, a vital product for corporate developers and integrators seeking powerful, proven ObjectWare solutions.

Logicon Ultrasystems, Inc.
Chantilly, VA
Booth 616

Logicon Ultrasystems is a full-service NeXT integrator delivering systems integration, software engineering, and training services for federal and commercial customers. We played the lead engineering role in designing and implementing the largest NeXT network in the world. Our exhibit highlights current and future trends in NeXT networking, document

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Callisto's intuitive four-part interface dramatically reduces the time, cost, and complexity of the authoring process.

As a NEXTSTEP application, features object-oriented prog also offers Display Postscript, realistic images, and CD-quali with NEXTSTEP's AppleTalk Netware compatibility, Callist fit in PC and Macintosh netwo

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Imagine Multimedia Announces Callisto™

Interactive Media Publishing software for creating interactive multimedia titles for playback on Compact Disc Interactive (CD-I®) and NEXTSTEP®/Intel computers

Use the Simulator Window to build your interactive title one screen at a time. Test it as you create it, with instant feedback.

Rapidly rework your title. Use the Inspector Panel to review and edit each screen's contents, timers, interactive logic, and effects.

Callisto's intuitive four-part interface dramatically reduces the time, cost, and complexity of the authoring process.

Use the Tool Panel to drag-drop text, images, backgrounds, sounds, music, animation, hotspots, and digital video.

As a NEXTSTEP application, Callisto features object-oriented programming. It also offers Display Postscript, photo-realistic images, and CD-quality sound. And with NEXTSTEP's AppleTalk and Novell Netware compatibility, Callisto is a natural fit in PC and Macintosh networks.

Watch Callisto automatically create a graphical overview of your title. The Navigator dynamically builds a map of your interactive branching.

Use NEXTSTEP/Intel to author and play back interactive titles on an Intel 486 PC with standard PC sound and video boards.

With Callisto's CD-I publishing tools, you can:

- Create a CD-I disc for playback on Sony *Intelligent Discman*.
- Create a CD-I disc for playback on Philips' $695 consumer CD-I *Imagination Machine*.
- Playback your Callisto interactive title on any standard television or video projection device anywhere in the world.

CD-I is the only consumer multimedia standard supported by Philips, Sony, Matsushita, and 20 other major corporations. CD-I players are now available at over 4,000 outlets in the U.S., Europe, and Japan.

Test drive Callisto in Booth #228, NeXTWORLD Expo. Also, please join us at the Imagine/Philips/NeXT Interactive Media Publishing Press Conference. See Show Guide for time and location.

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LogicStream
Palo Alto, CA
Booth 229

Introducing Espionage: The Art of Plotting. Espionage produces professional-quality charts and graphs effortlessly. Over thirty 2-D and 3-D plot types come with Espionage, while loadable plot modules allow for as many additional plot types as you can dream up. The muultiple-page plotting surface with grids, rulers, zoom, real-time resizing, and drawing tools makes even complicated layouts a snap. Data Table allows for easy loading and editing of numerical data. Advanced features include plot templates, document templates, curve fitting, data ID, and batch-mode processing. Come by and check it out.

Lucky-Goldstar International Corporation
Fremont, CA
Booth 708

Lucky-Goldstar offers NEXTSTEP technology at very competitive prices. Come see why *Fortune 500* companies are selecting Lucky-Goldstar systems, and we will show you how to combine great performance and power of compatibility at a reasonable price. We create turnkey solutions today that meet your information needs for the future.

Memory International
Aliso Viejo, CA
Booth 829

Memory International is a major memory manufacturer of PC, laptop, workstation, and laser-printer memory-upgrade products. Memory International has been involved as a NeXT developer for the last several years. Memory International will be exhibiting its new 32MB memory module for the NeXT Color Turbo and Dimension machines. This module, used two or four at a time, will allow you greater access speeds through system application, but also run cooler, and enable you to upgrade to 128MB. Memory International will continue to support all aspects of NeXT systems, as well as providing memory upgrades for all new platforms running NEXTSTEP for Intel. Please stop by our booth and pick up your very own system configuration guide and see our memory upgrades for the new Compaq M and L series, the Dell 466 MEG series, the AST Power Premium, HP Vectra, Toshiba T6400 DXC, and NEC Powermate Express.

Metrosoft
San Diego, CA
Booth 930

These six utilities enhance your NEXTSTEP productivity: ApplicationLauncher provides up to 32 highly configurable docks. FontInstaller simplifies installing fonts, including converting Macintosh typefaces. NiteLite has screen-locking and backdrop features and can run during the login window. Also contains: File Locator, Archiver, and Sound Importer. Expandable. Free technical support.

Millennium Software Labs, Inc.
Menlo Park, CA
Booth 836

Millennium will demonstrate NoteBook, its breakthrough productivity application for information processing, and Engage!, it's innovative Dock-extender utility that enhances the way individuals manage files and projects. Millennium products are available now for all computers running NEXTSTEP Release 3.1. Don't miss the daily prize drawings at the Millennium booth.

MRJ
Oakton, VA
Booth 131

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Graphical Schema / ER Diagramming	YES	---	---	---	---
Graphical Schema Development	YES	---	---	YES	---
Graphical Database Navigation	YES	---	---	---	---
Graphical Database Administration	YES	YES	---	---	---
Graphical Query / Command Generation	YES	---	YES	---	YES
Customizable Tools & Viewers	YES	---	---	---	---
Customizable Forms & Reports	YES	---	---	---	---
Customizable Editors & Inspectors	YES	---	---	---	---
Customizable Roles / Personalities	YES	---	---	---	---
Programmatic Access & API	YES	---	---	---	---
NeXT Services Accessible	YES	---	YES	---	---
NeXT Data Link Support	YES	---	---	---	---
Multi-Threaded Processing	YES	---	---	---	---
Full Process Scheduling	YES	YES	---	---	---
Expandable Data Dictionary	YES	---	---	YES	---
Configuration Documentation	YES	YES	---	---	---
Configuration Management	YES	---	---	---	---
Multiple Product Support	YES	---	---	---	---
The Bottom Line	$500.00*	$995.00	$499.00	$2500.0	$349.00

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Visit DBSA in booth #716 at NeXTWorld Expo and experience Dataspace!

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Product features based on latest available versions at time of ad submission. Additional features may have been added prior to publication.

engineering company located in Oakton, Virginia, specializing in system-integration and software-development services for commercial and federal organizations. We are experienced with a range of technologies, from PCs to super computers, isolated systems to WANs, and COTs to the development of complex parallel and distributed applications.

NEC Technologies, Inc.
Boxborough, MA
Booth 312

NEC Technologies, Inc. is a leading manufacturer of computers and peripherals for the North American market. Product lines include award-winning MultiSync FG monitors; Silentwriter and Colormate printers; UltraLite notebook computers; MultiSpin CD-ROM hardware; and PowerMate, Image, and Ready systems products. NEC Technologies, Inc. is a subsidiary of NEC Corporation.

Network Express, Inc.
Ann Arbor, MI
Booth 708

Network Express' Dial-Up Router provides the ability to dial up bandwidth as you need it and uses inverse multiplexing to efficiently exchange data between remote sites. The Router uses switched digital services (ISDN and SW56) for the bandwidth required to access numerous data communication and LAN-to-LAN applications in business, government, and education environments.

NeXT, Inc.
Redwood City, CA
Booth 516

NeXT, Inc. develops and markets the industry-acclaimed NEXTSTEP object-oriented software for industry-standard computer architectures such as the Intel '486 and Pentium. NEXTSTEP is used by corporate customers to develop and deploy client-server applications, using both custom and shrinkwrapped productivity software.

NeXTWORLD Magazine
San Francisco, CA
Booth 308

NeXTWORLD proudly announces its move to a monthly frequency. *NeXTWORLD Extra* will once again become a regular late-breaking news section of the magazine. As developments take shape in the NeXT community, *NeXTWORLD* keeps you in touch with breaking news, product announcements, and business analyses. In addition to no-holds-barred product reviews and in-depth special reports, our timely coverage gives you the most extensive and comprehensive NEXTSTEP coverage available – in one complete package. Stop by our booth to sign up for your new subscription, or renew at special show rates.

NoIR
San Francisco, CA
Booth 115

NoIR – NeXT Organizations InteRnational – is an umbrella association for NEXTSTEP user groups worldwide. The host group, BANG, will be featured in the booth with membership information and its CD-ROM, *Sex, Lies, and CD-ROM*. Come by for information about the user group in your area.

NorthStar Technologies, Inc.
New York, NY
Booth 821

STREETwise Trader is the premier equity application for hedge funds. Designed by a trader for traders, STREETwise is a complete system, offering comprehensive deal management, securities-position tracking, and trade-execution reporting. Come to the NorthStar booth for a demo of this hot new financial system.

nPoint, Ltd.
Niles, IL
Booth 432

nPoint will be showing Frontface, an advanced, intuitive 3-D modeler for NEXTSTEP. Frontface will be shown for both NeXT- and Intel-based machines.

Objective Technologies, Inc.
New York, NY
Booth 216/315

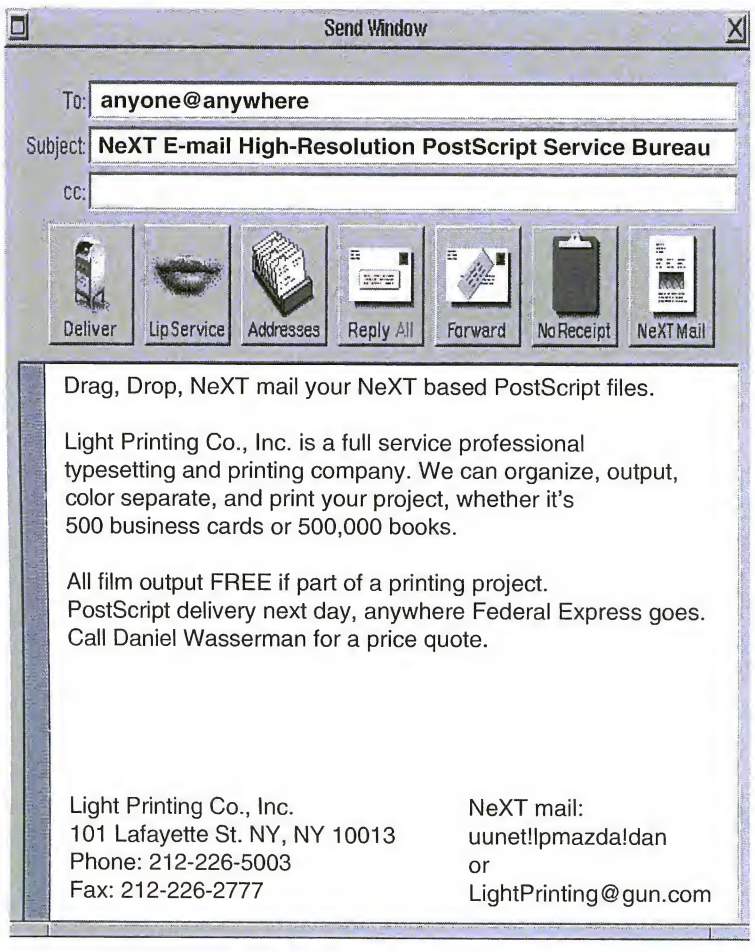
Objective Technologies, Inc. (OTI) is one of the premier NEXTSTEP software developers. OTI will be displaying its Intel-compatible developer tools, including the all-new SmartField Palette, its database tools, and its newest product, Impress, a report writer. Come to the booth for a demonstration of this powerful software and receive a fun gift for stopping by.

ONyX Systems, Inc.
Fort Worth, TX
Booth 917

Get the missing link in NeXTSTEP software development. BugByte is a revolutionary graphical debugger providing the NeXT developer with an accelerated environment for application debugging. Its intuitive user interface increases your productivity and effectiveness immediately. Stop by the ONyX booth and experience firsthand what BugByte can do for you.

Pages Software Inc
San Diego, CA
Booth 934

Pages that make themselves! Pages by Pages new object-based application takes word processing, desktop publishing, and presentations a step further – seamlessly integrating them into an easy-to-use and extremely powerful package. Pages provides expert design and layout assistance, allowing any user to focus on the content of a document. Pages' software solution



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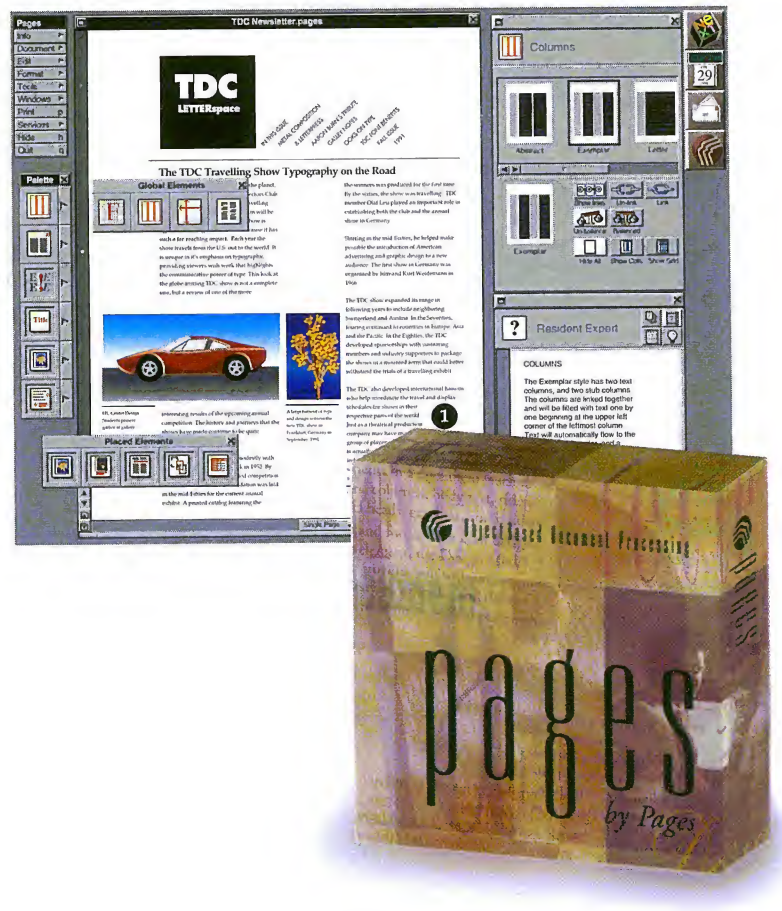
ObjectBased™ Document Processing



It's How we do it!

And how we do it lets you be more productive.

"Pages Software...provided impressive demonstrations of its concepts 18 months ago...It has been polished significantly to the point where it is quite impressive."

"Pages goes much farther than most systems in displaying icons to represent the various ways a document will look..."

"...the only options presented to the user are ones that would be considered appropriate typographically...you won't see pages with four or more narrow columns, or headlines that are seven or eight lines deep—mistakes that people often make when the design their own layouts with standard software."

"(Pages) system offers a lot of innovative ideas and solid functionality."

The Seybold Report on Desktop Publishing 11/2/92.

"Occasionally a program comes along that defines a new genre of applications and (not coincidentally) makes an entirely new and different platform worth buying. Pages...from Pages Software is a program that could do just that for NeXT...Awesome in its simplicity."

Bove & Rhodes INSIDE REPORT 10/1992.

"Pages is a stunning product, and I believe it will become a major mainstream product on NEXTSTEP."

Steve Jobs, Founder and CEO of NeXT Computer, Inc.

"Instant pages—just add content. No design expertise needed. Just blend in text and graphics, and watch the fully formed pages take shape before your very eyes...Pages is on the trail of the market of the future: page processing."

PUBLISH Magazine, Layout & Design Technology Report 2/93

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San Diego, CA 92124
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Phone 619 492-9050
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E-Mail: info@pages.com

gives users the ability to create professionally designed, effective documents simply and quickly. See us at booth 934.

Paget Press, Inc.
Seattle, WA
Booth 916

See the *Electronic AppWrapper*, the most complete source of products and services for NEXTSTEP users. Browse this electronic catalog for software, hardware, fonts, clip art, and books. Run demos of NEXTSTEP applications!

Pangea Corporation
Annandale, VA
Booth 736

MindShare is a collaboration environment for NEXTSTEP. Sharing, discussing, and tracking information is the foundations of working together. With MindShare, you can lower barriers to effective communication while simultaneously reducing your information overload. In short, MindShare is a tool for sharing information efficiently. MindShare users participate in shared electronic "discussions" available to workgroups across your entire organization. Ad hoc teams can create their own discussions, and access can be limited to any set of users. Finding the right message is never a problem: You can easily search the entire database or sort messages by priority. And an advanced client-server architecture means efficient storage and distribution of documents of any size – around the office and around the world.

Parabase Software Corp.
Santa Monica, CA
Booth 334

Come see the future of client-server database technology! PARABASE, the highest-rated graphical database front end for NEXTSTEP, and Gupta SQLBase Server, the highest-rated SQL database server for PC networks, will be shown together for the first time. At the show you can purchase PARABASE bundled together with the Gupta SQLBase Server, a complete development system, for only $995.

Pencom Software
Austin, TX
Booth 622

Pencom, a leading NeXT-registered systems integrator, provides a complete range of services for companies migrating to a NeXT or heterogeneous computer environment: Integration/Support, Software Development Mentoring, Prototyping, Networking, Database Systems, Applications Reengineering, NEXTSTEP '486 Device Drivers, and Training and Staffing. Pencom is the developer of co-Xist, selected by *UNIXWorld* as the best NeXT X11R5 server. co-Xist allows NeXT users to run and develop X applications from within NEXTSTEP.

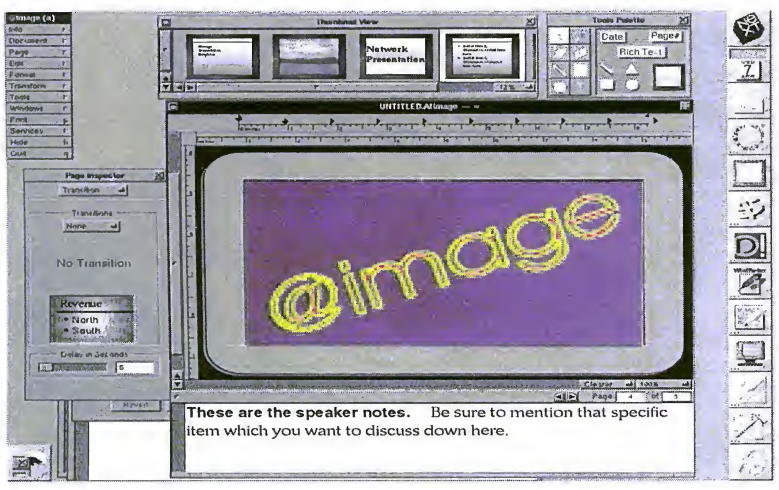
Perennial Software
San Francisco, CA
Booth 915

Perennial Software will debut its new document-management system for NEXTSTEP, Perennial Document Librarian (PDL). The PDL system is an easy-to-administer client-server application that manages multiple libraries of documents, making it easy for information to be shared and accessed by a work group. PDL's ease of use and advanced feature set make it the most powerful document-management solution available today.

Pinnacle Research, Inc.
Tuscon, AZ
Booth 935

Pinnacle will feature its full product line: WetPaint – bitmap editing/image processing; PageChain – assemble multiple files for faxing/printing; Pinnacle Sequence – MIDI sequencing/DSP synthesis; Transfer – remote

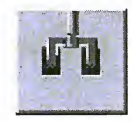
Powerful Presentation Graphics for the User...



The best presentation graphics package at the most affordable price of $399.

and PowerPalettes™ for the Developer!

RDRSelector $199
for listing selections



RDRSwitchView $149
for view switching

RDRGadgets $129
for drawing objects

RDRImageView $139
for color images

The most versatile family of interface objects that saves development time and cost.

RDR, Inc.
10600 Arrowhead Drive, Fairfax, VA 22030 703/591-8713

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A tool bar provides access to common features and controls.

Eight different objects are fully supported including rich text, sound, TIFF and EPS.

Fourteen different charts are just a click away.

Charts and tables are easily exported to other programs via Object Links.

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Appsoft Solution

A traditional spreadsheet for NeXTSTEP

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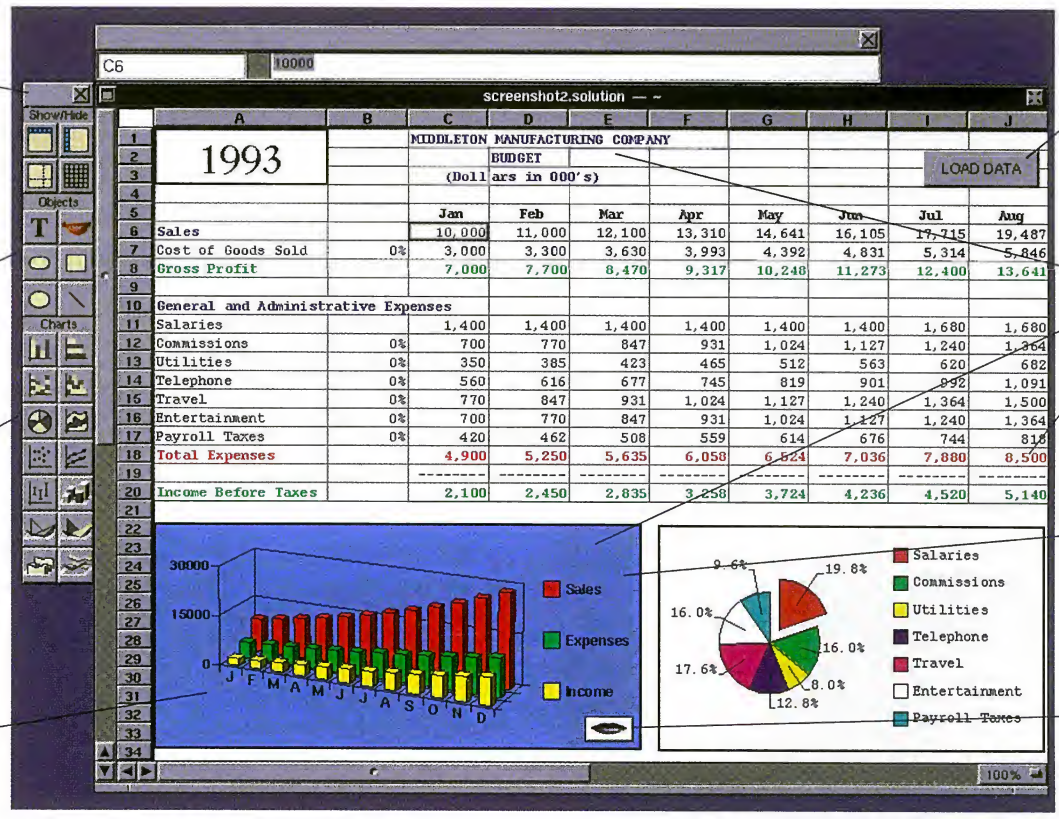
Fourteen different charts are just a click away.

Charts and tables are easily exported to other programs via Object Links.



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NeXTmail and file access; Typeology – design and edit Type 1 fonts; VirtSpace – virtual workspace manager; and VWall – direct network messaging.

Pioneer Technologies Group
Gaithersburg, MD
Booth 708

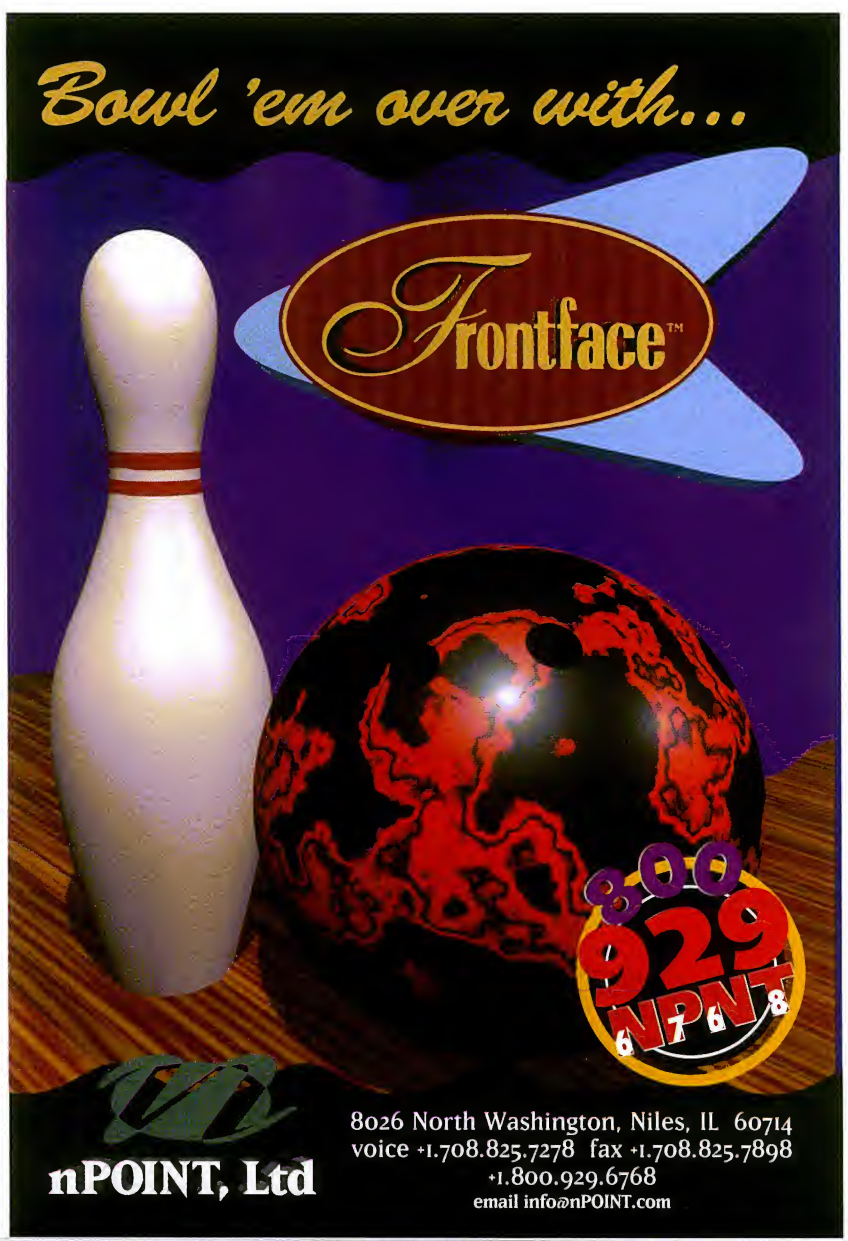
Pioneer Technologies, along with ANDI, the Association of NEXTSTEP Developers International, will be demonstrating the Intel GX workstation with NEXTSTEP for Intel. The high performance GX workstation has the Intel '486-DX/2 66MB CPU, local-bus frame buffer using the ATI Mach 32 graphics chip set, integrated audio and SCSI, EISA slots, and can support 128MB of memory on the motherboard.

Professional Software, Inc.
Wakefield, MA
Booth 536

Objective DB Toolkit enhances the powers of InterfaceBuilder with a 4GL script language to put the development of custom apps within reach of any developer. Features include: full support of Database Kit, flexibility to add custom objects and language functions, extensive field templates, overlaid views, and interface to Improv and UNIX. Come by for espresso and cappuccini, third-party software, and a 30-percent show discount.

RDR, Inc.
Fairfax, VA
Booth 918

RDR, Inc. will be demonstrating products for both the developer and end-user communities. For the NeXT developer, RDR's PowerPalettes offers a family of five objects that provides useful graphical-interface capabilities, enhancing the power of NEXTSTEP. Members of the RDR PowerPalette family include RDRSwitchView, RDRSound, RDRSelector, RDRImageView, and RDRGadgets. Discounts on PowerPalettes are available for sales at the booth! For the end user, RDR's @image is a powerful desktop-presentation package that creates multipage, multimaster slide presentations for viewing locally or remotely. @image's authoring capabilities include slide drawing, per-page sounds, graphical transitions, and object links. Most importantly, @image is affordably priced.



Ridgeback Solutions
Malibu, CA
Booth 222

NetWatch is the first SNMP network-management solution for NEXTSTEP. NetWatch allows the user to monitor any SNMP MIB-I or MIB-II device, such as a router, bridge, concentrator, or workstation running SNMP. Support is provided for setting up unlimited topology maps with background graphics. Alarms may be set for any MIB-II variable to automatically monitor key network devices. NetWatch can send e-mail, dial a pager, flash the node alarming, and run a user program as a result of an alarm going off.

RightBrain Software
Palo Alto, CA
Booth 817

RightBrain Software is the premier developer of publishing software for NEXTSTEP. We'll be showing Version 2.0 of PasteUp, a revolutionary page-layout program that's our answer to QuarkXPress and PageMaker. We are also introducing our brand-new RightBrain word processor for all NEXTSTEP platforms.

Sarrus Software
Redwood City, CA
Booth 716

Visit our booth to see Pencil Me In and SBook, premier scheduling and contact-management applications for NEXTSTEP. Keep track of meetings, appointments, and action items with Pencil MeIn, and use SBook to manage names and addresses. We'll be giving away free demos of our products, so be sure to stop by.

Schema Research Corp.
Foster City, CA
Booth 336

See SchemaE – a schema engineer and Sybase environment for database evolution. SchemaE is a CASE and database-design and management tool for Sybase databases. SchemaE speeds development and improves the design process by eliminating the need for SQL scripts. SchemaE generates SQL for source-code control and prints formatted table, type, procedure, and cross-reference reports. SchemaE integrates into NeXT application tools like InterfaceBuilder and the Database Kit by creating DBKit models.

Second Glance Software
Laguna Hills, CA
Booth 321

ScanTastic: Applications that provide NEXTSTEP connectivity to various color image scanners. Features include nondestructive image-processing and color-correction tools. These can be chained together, forming an edit list to provide custom set ups and allowing for application of corrections to preview images before processing the final, high-resolution image in the background. Stop by our booth for very special EXPO pricing.

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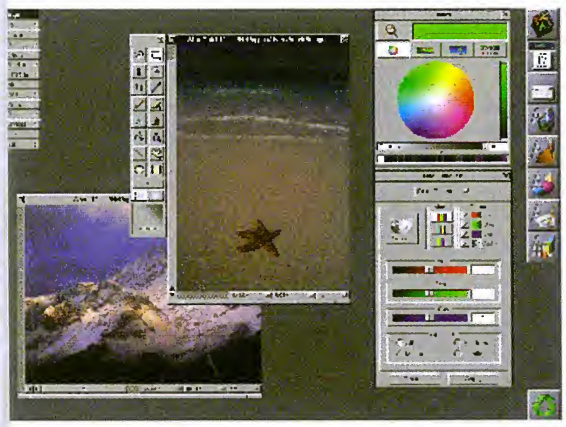
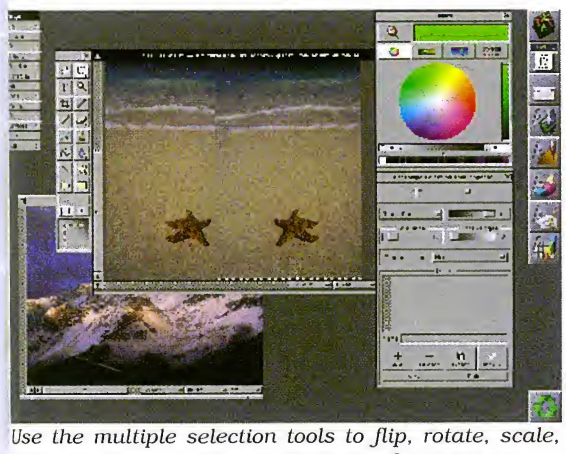


Apply any of the built-in filters to scanned 24-bit photos

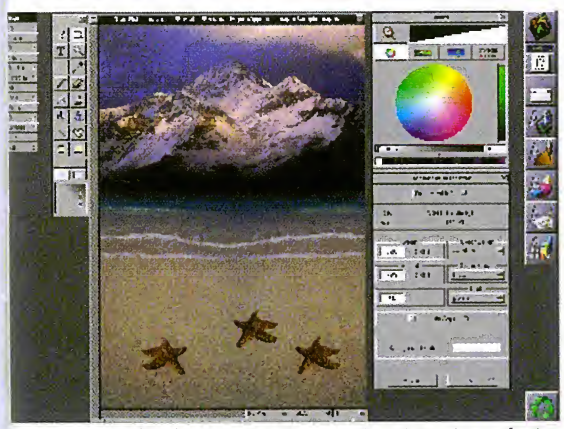
PROFESSIONAL PHOTO EDITING & IMAGE RETOUCHING Retouching scanned photos is a snap with Appsoft Image. That's because you can airbrush out imperfections instantly. Appsoft Image can restore any erased area to its last saved form or remove all the pixels in any specified color range. Since you can work with RGB, CMYK or HSB images, you can edit any color channel, including transparency. Adjust contrast, color balance, brightness and more. You can even clone part of an image. And when your ready to output your artwork, calibrate your monitor to your output device for a perfect match every time.



Use the multiple selection tools to flip, rotate, scale, skew or just copy and paste portions of an image

PRECISION PAINTING & SELECTION TOOLS For photographic montages or to add painterly touches to a scanned image, simply select the areas you want to work with using one of the program's sophisticated tools. If you prefer, draw a freehand selection or create a custom mask. Now paint with colors, gradations, textures, cloning, filters and with independent control over line and fill paint attributes. Appsoft Image even ensures that your image looks precisely the way you want it by magnifying up to 32:1.

CUSTOMIZED SPECIAL EFFECTS With 25 filters and a range of paint brushes, Appsoft Image makes it easy to turn a simple image into something simply spectacular. Diffuse an entire photo. Make waves or swirls in a selected area. Paint with textures or cloned images from other photos. Transform a still-life into real life by adding motion blur. With Appsoft Image's user adjustable filters you're in complete control. What's more, you can create and save additional textures, gradients and brushes for a truly customized painting environment.



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SiRiUS Solutions, Inc.
San Francisco, CA
Booth 433

MacAdam and SiRiUS Solutions present CheckSum, a program for the single user or small-business owner with basic accounting needs. CheckSum tracks expenses, income, assets, and liabilities, and provides Income Statements and Balance Sheets. And, of course, CheckSum reconciles your accounts and prints checks. MacAdam is an authorized NEXTSTEP retailer.

Skylee Press
San Francisco, CA
Booth 227

SMC Systems, Inc.
Hartford, CT
Booth 215

SMC Systems, Inc., a NeXT application developer and systems integrator, will be showing a suite of client-server objects for the NeXT DBKit. The objects are designed to make database navigation and manipulation as easy as using the NeXT workspace. Premiering at NeXTWORLD EXPO are: SMCShelf, for placing a database element on a temporary Shelf to be copied into another location; SMCRowDragger, allowing a DBKit application to drag and drop a row from one table to another; SMCSortBuilder, allowing the user to choose the order in which rows are fetched from a database; SMCQualifierBuilder, allowing the creation of DBQualifiers and search panels within InterfaceBuilder; SMCBigImageView, removing the size restrictions imposed by DBImageView and **dbcmd**(); SMCModuleMgr, allowing multikey one-to-many relationships in the DBKit.

SofDesign Solutions Corporation
Greenwich, CT
Booth 103

SofDesign Solutions introduces the QuickBase-SQL database engine and development tools. QuickBase-SQL offers the best solution for application developers with a bigger vision for their applications. Single-user applications automatically become multiuser QuickBase licenses. Several corporate locations can economically access the same data with our database-replication scheme. QuickBase offers advanced features to make your applications better.

Software Ventures
Berkeley, CA
Booth 728

MicroPhone Pro for NEXTSTEP is a breakthrough product that makes telecommunications accessible to everyone. It features a powerful Pascal-like script language, high-speed modem control, Watch Me macro maker for recording log-on scripts, and background file transfers. MicroPhone Pro includes terminal emulation for TTY, VT100, and VT102, and features file-transfer protocols for text and ASCII, Xmodem, Ymodem, and Zmodem.

Step 2 Software Inc.
Phoenix, AZ
Booth 234

dbPUBLISHER is an unsurpassable tool for processing repetitive and recurring information for directories, catalogs, price lists, and reports to any level of sophistication. dbPUBLISHER allows the user to access and control a multitude of database, spreadsheet, and multimedia formats in order to produce powerful reports in the layout program or word processor of their choice. The user specifies the desired fields and conditions and dbPUBLISHER transparently generates the output for placement in the layout system. dbPUBLISHER delivers what so many users have been asking for – enhanced DBKit capabilities married to the layout system or word processor of their choice.

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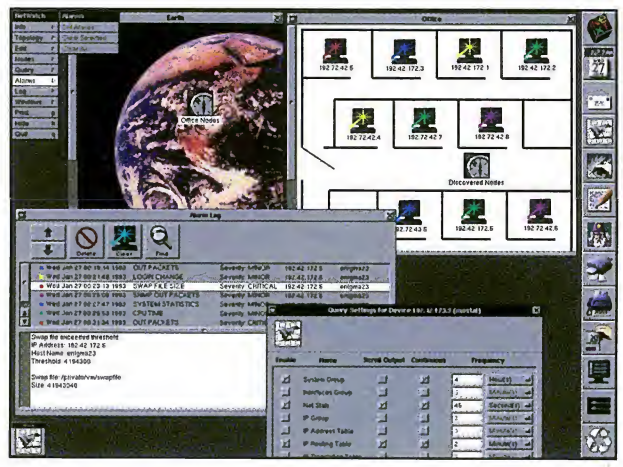

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NetWatch™ helps you monitor and control the entire network with an interface that's intuitive and familiar. Even if you've never used network management software before.

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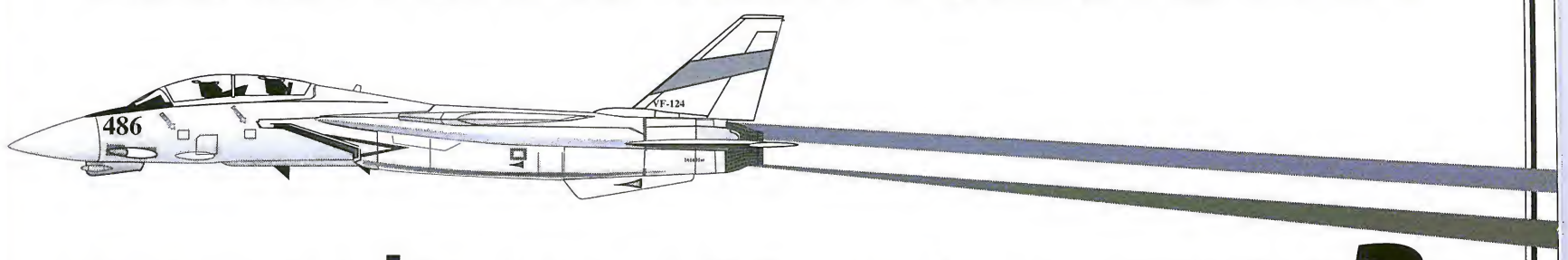

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Stone Design
Albuquerque, NM
Booth 408

Look for the castle! Stone Design welcomes you to NeXTWORLD EXPO '93 and hopes you'll frequent our four-section booth, which features custom-designed demo stations for DataPhile, Create, and 3DReality, as well as a special Developers' Lounge, where small developers are welcome to demo and mingle with Stone staff and other developers.

Systemhouse, Inc.
Boulder, CO
Booth 530

The Systemhouse Object Technology Center (OTC), supporting Systemhouse's leadership in client-server computing, is committed to discovering, enhancing, and sharing its object-oriented enabling technologies. The OTC will present its latest developer tools, discuss how companies can adopt an object-oriented development philosophy and architecture to best achieve a competitive edge, and demonstrate how NEXTSTEP is a compelling platform for implementing this architecture.

Systemix Software
Columbia, MD
Booth 835

Come see SafetyNet, the only full-featured, network-capable back-up software for networks of NEXTSTEP computers. Available for all NEXTSTEP platforms, SafetyNet provides features such as full or incremental backups, on-line catalogs, and immediate access to archived files, all in an easy-to-use point-and-click interface.

TELOS/Springer-Verlag
Santa Clara, CA
Booth 435

Take advantage of the 20-percent show discount and order your copy of the NeXT community's hottest new publication, *NEXTSTEP Programming – STEP ONE: Object-Oriented Applications*, by Simson Garfinkel and Michael Mahoney. Preview and order Mike Shebanek's forthcoming *Complete Guide to the NEXTSTEP User Environment*, to be published in June by TELOS, The Electronic Library of Science, a Springer-Verlag imprint from Santa Clara, California. Both books are packaged with DOS diskettes.

Thoughtful Software
Fort Collins, CO
Booth 708

HyperSense is an exciting new product that unlocks the power of NEXTSTEP for everyone. By simply dragging fields, buttons, and graphics onto a page, you can easily create interactive multimedia documents, from databases to presentations. The ability to add scripts to any object, combined with HyperSense's rich document architecture, provides tremendous flexibility. The powerful SenseTalk scripting language is so English-like that it's exceptionally easy to learn and understand. Compatibility with HyperTalk makes it possible to import HyperCard stacks.

TMS
Germany
Booth 123

1VISION: Productivity Publishing is now available in the U.S. The 1VISION publishing environment and its productivity-publishing tools include products for image processing, vector graphics, and text design and layout. All modules are available separately. 1VISION is available now for NEXTSTEP 3.0 and NEXTSTEP for Intel operating systems. Stop by and order your free nonlicensed version of all the productivity-publishing tools currently available!

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SafetyNet™ is the powerful backup and archiving application for computers running the advanced NeXTSTEP® operating system. File selection is as easy as drag and drop. And, SafetyNet supports DAT, 8mm, Cartridge Tape, and On-line Disk devices.

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- Unlimited pathname length
- NeXTstep 2.x and 3.x compatible
- Four cube rating by NeXTWORLD Magazine

For more information contact:

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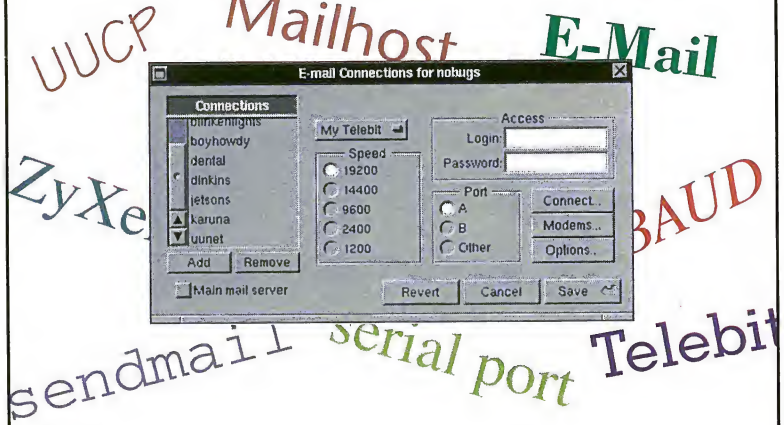

Connect! sets up and manages E-mail and UUCP connections to other computers and Internet gateways. • Includes tested preset modem and e-mail configurations • Initialize "out-of-the-box" modems • Configure, test, and monitor connections to one or many mail servers • Requires no UUCP or e-mail administration knowledge to set up new connection. Perfect for user groups, home computer users, and anyone new to NeXTSTEP who wants e-mail. Supports Telebit, ZyXel, and 100% Hayes-compatible modems.
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Mathematica, now shipping 2.2, is a system for doing numerical, symbolic, and graphical computation, both as an interactive calculation tool and a programming language. Numerical capabilities include arbitrary-precision arithmetic and matrix manipulation. On some systems, Mathematica's front end supports Notebooks that mix input, graphics, text, and sound. Graphics are generated in PostScript form.

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Cables is a line of terminal-emulation and communications products for NEXTSTEP featuring: color support; VT320, Tektronix 4010/4014, Dasher D200, and ANSI-PC terminal emulation; Xmodem, Ymodem, and Zmodem and Kermit file-transfer protocols; Remote Device Protocol; UNIX TTY, PTY, and telnet client; and modem and phone number database. Contact Yrrid for pricing and availability. TTYDSP is shipping now. TTYDSP is a software/hardware combination that converts a NeXT computer DSP into a high-speed asynchronous RS-232 port. Capable of speeds up to 128,000 baud, TTYDSP emulates a NEXTSTEP TTY driver, providing compatibility for a wide range of communications applications such as SLIP/PPP and UUCP. TTYDSP is $189 per unit.

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❖ The SHL team has assembled a network of intellectual and technological leadership that customers can leverage not only to solve existing business problems but also to build strategies for addressing long-term needs. By encouraging customers to become part of the development process, SHL helps them cultivate an object development philosophy, apply it consistently when architecting objects or systems of objects, understand how to build domain-specific object libraries to maximize reuse, and refine these object libraries as customer needs evolve.

❖ The OTC's object-oriented approach to software development allows customers to create high-margin services faster, better and cheaper than their competitors. The development philosophy and architecture of this approach bring to business a new way of thinking - through new languages, new development tools, and maintenance and modification benefits.

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❖ Call SHL Systemhouse Object Technology Center for more information - (303) 449-2870, Ext. 222.

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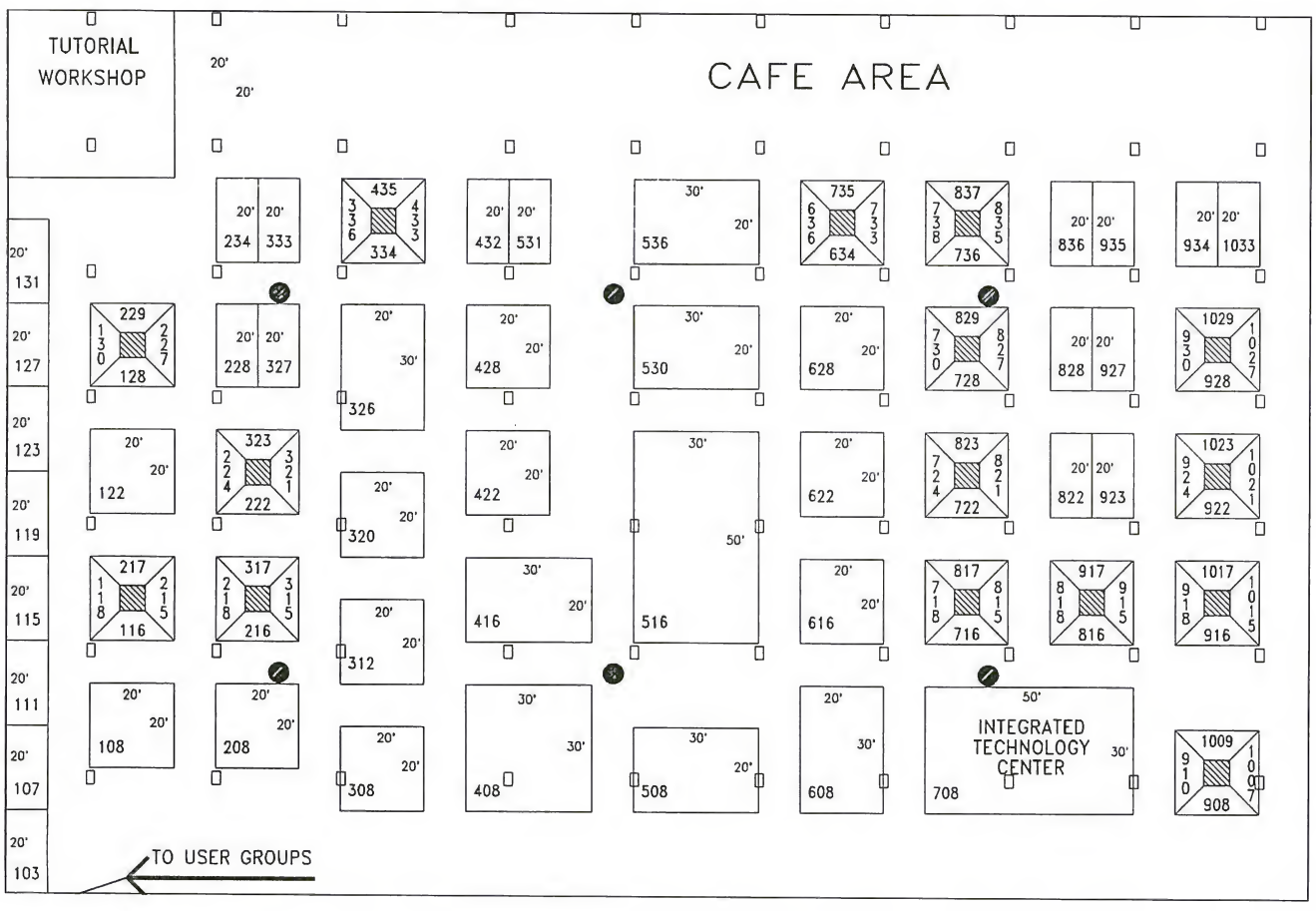

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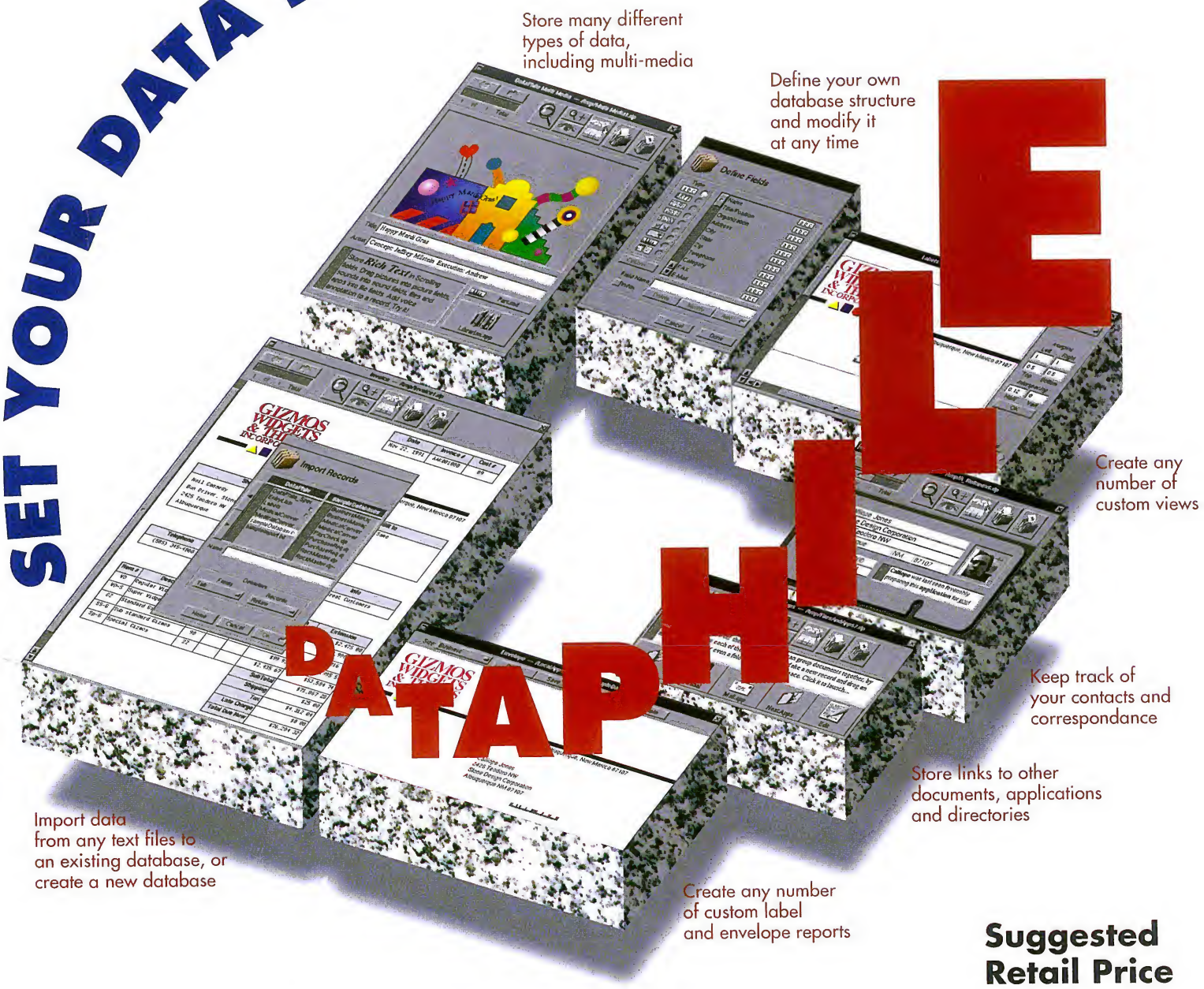

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